FINAL

ENVIRONMENTAL IMPACT REPORT

TIDEWATER CROSSING

STOCKTON, CALIFORNIA

EIR FILE NO. 2-05

SCH#2005122101

LSA

September 2008

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Submitted to:

City of Stockton
Community Development Department
345 N. El Dorado Street
Stockton, California 95202

Prepared by:

LSA Associates, Inc.
4200 Rocklin Road, Suite 11B
Rocklin, California 95677
(916) 630-4600

LSA Project No. HDA530

LSA

September 2008

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1.0 INTRODUCTION

This document is a compilation of comments submitted on the Draft Environmental Impact Report (EIR) and responses to those comments. Comments have been submitted in the form of letters following the review of the Draft EIR document.

Final EIR Components

The basic Final Environmental Impact Report (Final EIR) for the Tidewater Crossing Project consists of the Draft EIR document, the responses to comments, and the Mitigation Monitoring and Reporting Program. Other components (separate from the Final EIR) of the environmental review process generally include the public meeting comments, the Statements of Facts and Findings and Overriding Considerations, resolutions, staff reports, hearing minutes and official notices.

Public Review of Draft EIR

On March 6, 2008, the 45 day public review period was initiated at the State Clearinghouse. The review period ended on April 21, 2008. Responses are provided for each comment letter on the Draft EIR.

Recirculated Sections of the Draft EIR

A recirculation of selected DEIR sections was prepared and distributed for public review on July 7, 2008. The document was prepared to document changes that have occurred with the proposed project and/or conditions that potentially affect previous findings presented in the March 2008 Draft Environmental Impact Report (EIR). Several comments received by the City involved greenhouse gas (GHG) emissions generated by the project and the potential effects expected on global warming. As the issues involving GHG are evolving as a science, at the time the March 2008 Draft EIR was circulated, information and the analysis contained in the document was presented to address the project impacts to the extent available at the time. In light of the comments received, and recent availability of information and analytical tools, the City of Stockton has re-examined the project's effects on global warming due to the contribution of GHG and has prepared the supplemental information and analyses presented in this revised document. This document can be seen in Appendix A. The review period for the recirculated sections of the draft EIR ended on August 20, 2008. Public review of the recirculated sections of the DEIR generated duplicate comment letters from FEMA, the Department of California Highway Patrol, and the San Joaquin County Environmental Health Department. In addition, comments previously raised by the City's Police Department were received.

1.1 FINAL EIR PROCESS

Response to Comments

The Responses to Comments provides a record of the changes that are required in the Draft EIR, as well as responses and clarifications raised by the comment letters. Together, the Draft EIR and the Responses to Comments record the environmental review process and findings, from the issuance of the Notice of Preparation, through the document certification.

The Responses to Comments include the original comment letter submitted by the commenting party (citizen, agency, etc.) followed by the EIR response. To facilitate reader convenience, each comment has been assigned a comment code, with each response linked by the same code. Due to the similarity or duplication of some comments, the reader maybe referred to a previous (or subsequent) response provided elsewhere in the Response to Comment portion of the Final EIR.

Decision-Makers Roles

The Planning commission and City Council will need to review the Response to Comments in conjunction with their recommended decisions on the proposed General Plan Amendment, Prezoning, Master Development Plan, Tentative Subdivision Map, Annexation, Sphere of Influence Amendment, Development Agreement and other decisions subject to environmental review in conjunction with the Final EIR. The Planning Commission will certify the Final EIR and make a recommendation to the City Council as to its adequacy and completeness of the Final EIR for all other actions. Both the Planning Commission and City Council will use the information to understand the range of potential impacts due to the project in making their decision on the project.

1.2 ERRATA

The Final Environmental Impact Report is amended with these errata to address further refinements recommended by specific City departments. This coordination is relevant to the proposed project and is, therefore, included in the project record.

The following changes have been made to the DEIR:

Any housing or other development projects that are subject to a Specific Plan, Master Development Plans, or any project of significance, shall comply with all amendments and modifications to the 2035 General Plan required under the City, the California Attorney General, and the Sierra Club Settlement Agreement, as approved by the Stockton City Council on September 9, 2008.

Mitigation Measure GCC-1 (a) will be reworded as follows:

a. Utilize building insulation that exceeds Title 24 energy standards. Utilize high-performance windows that employ advanced technologies, such as protective coatings and improved frames, to retain heat during winter and prevent heat during summer.

e. All new non-residential buildings that exceed 5000 square feet and all new municipal buildings that exceed 5000 square feet to be certified to LEED Silver standards at a minimum, based on then-current LEED standards, or to comply with a green building program that the City, after consultation with the Attorney General, determines is of comparable effectiveness.

Mitigation Measure GCC-5 will be reworded as follows:

Mitigation Measure GCC-5. The following measures shall be used to accomplish an overall reduction in residential energy consumption relative to the requirements of State of California Title 24:

a. Energy-efficient design shall be provided for homes and buildings, including automated control systems for heating and air conditioning, lighting controls and energy-efficient lighting in buildings, increased insulation, and light-colored roof materials to reflect heat.

b. Residences shall be constructed with energy efficient appliances and home systems such as Energy Star appliances, energy efficient (i.e., Low E2) windows, tightly sealed ducts, florescent or energy efficient light bulbs with motion sensors where practicable, backyard outlets for electrical mower and other yard equipment operations, R-6 duct insulation, radiant roof barrier sheathing, 14 Seasonal Energy Efficiency Ratio air conditioning and ventilation systems, air conditioning with Thermostatic Expansion Valve metering devices that help regulate flow of liquid refrigerant, 0.95 Annual Fuel Utilization Efficiency furnaces, and gas dryer stubs.

c. Buildings and outdoor structures shall include green-building materials, such as low-emission concrete, or recycled aggregate to be used in foundations; recycled plastics to be used in community structures such as fencing or playground equipment; wood flooring materials treated with low emission varnishes and floor board substrates to be made from low emission particleboard; compact fluorescent light bulbs in all buildings; and use of recycled building materials such as recycled aluminum for window frames or post-consumer plastic for piping.

d. Contractors shall minimize the production of waste and shall recycle construction-related waste where possible.

e. Locally made building materials shall be used for construction of the project and associated infrastructure to reduce truck trips.

f. Large canopy trees shall be carefully selected and located to protect buildings from energy-consuming environmental conditions and shade-paved areas. Trees shall be selected to shade 50% of paved areas within 15 years.

g. Optimize building's thermal distribution by separating ventilation and thermal conditioning systems.

h. For pool and spa heating and maintenance, use solar heating and automatic covers.

i. Design buildings to accommodate solar power systems; solar panels on homes, carports over parking areas; solar and tankless hot water heaters; and energy-efficient heating ventilation and air conditioning.

j. Incorporate the principles of passive solar design into building structures, including basic design principles are large south-facing windows with proper overhangs, as well as tile, brick, or other thermal mass material used in flooring or walls to store the sun's heat during the day and release it back into the building at night or when the temperature drops.

k. Include energy-conserving features as options for the home buyer/commercial or industrial tenant. These include:

- increased wall and ceiling insulation (beyond title 24 building code requirements);
- high-albedo (reflecting) roofing materials;
- cool paving (i.e., use of lighter colors);
- radiant heat barriers;
- installation of solar water-heating systems;
- low NOx-emitting or high-efficiency, energy-efficient water heaters;
- installation of clean-energy features that promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems);
- installation of programmable thermostats for all heating and cooling systems;
- awnings or other shading mechanisms for windows;
- porch, patio, and walkway overhangs;
- ceiling fans or whole-house fans;
- passive solar cooling and heating designs (e.g., natural convection, thermal flywheels);
- daylighting (natural lighting) systems such as skylights, light shelves, and interior transom windows;
- electrical outlets around the exterior of units to encourage the use of electric landscape maintenance equipment;
- use of low and no-VOC coatings and paints;
- pre-wired units with high-speed modem connections/DSL and extra phone lines; and
- use of low or nonpolluting landscape maintenance equipment (e.g., electric lawn mowers, reel mowers, leaf vacuums, electric trimmers and edgers).

The following mitigation measure shall be added into Section 4.9, Public Services:

Mitigation Measure PP-1f: The Tidewater Crossing development shall require sufficient lighting and strategically placed security cameras to promote security for residents.

The following mitigation measures shall be added into Section 4.15, Global Climate Change:

Mitigation Measure GCC-10: The owners, developers, and/or successors-in-interest (ODS) shall obtain Build It Green certification, based on then-current Build It Green standards, or comply with a green

building program that the City, after consultation with the Attorney General, determines is of comparable effectiveness for all new housing units.

Mitigation Measure GCC-11: If housing units or non-residential buildings certify to standards other than, but of comparable effectiveness too, Build It Green or LEED Silver, respectively, such housing units or buildings shall demonstrate using an outside inspector or verifier certified under the California Energy Commission Home Energy Rating System (HERS), or comparably certified verifier that comply with the applicable standards.

2.0 RESPONSE TO COMMENTS

2.1 WRITTEN COMMENTS AND RESPONSES

The section that follows includes the comment letters submitted by various public agencies and private parties, and the responses to those comments. The content of each letter has been divided into individual comments. To assist in referencing comments and responses, each comment has been assigned a code number. Responses are numbered so that they correspond to the appropriate comments. Comment letters received from City departments are not included in this FEIR, however, their comments were considered in its preparation. Commentors on the Draft EIR for the Tidewater Crossing project are listed as follows:

Department of Transportation (April 23, 2008)

California Department of Food and Agriculture (April 21, 2008)

State of California Department of Justice (April 21, 2008)

San Joaquin Local Agency Formation Commission (April 17, 2008)

San Joaquin Regional Transit District (April 21, 2008)

Department of Conservation (April 17, 2008)

Department of Toxic Substances Control (April 17, 2008)

San Joaquin Council of Governments, SJMSCP (April 14, 2008)

San Joaquin County Public Works (April 21, 2008)

Federal Emergency Management Agency (April 10, 2008)

Department of California Highway Patrol (April 7, 2008)

San Joaquin County Environmental Health Department (April 3, 2008)

San Joaquin Council of Governments (March 21, 2008)

Sierra Club (April 21, 2008)

San Joaquin Valley Air Pollution Control District (May 12, 2008)

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 STOCKTON, CA 95201
(1976 E. CHARTER WAY/1976 E. DR. MARTIN
LUTHER KING JR. BLVD. 95205)
PHONE (209) 941-1921
FAX (209) 948-7194
TTY: 711

Flex your power!
Be energy efficient!

April 23, 2008

10-SJ-99-PM 13.0
SCH# 2005122101
DEIR
Tidewater

Jenny Liaw
City of Stockton
Community Development Department
Planning Division
425 North El Dorado Street
Stockton, CA 95202-1997

Dear Ms. Liaw:

The California Department of Transportation (Department) appreciates the opportunity to have reviewed the Draft Environmental Impact Report (DEIR) for the proposed development of an industrial/residential project on lands south of and contiguous to the Stockton Metropolitan Airport. The proposed project includes a General Plan Amendment, Master Development Plan (MDP), Prezoning, Tentative Tract map, Sphere of Influence amendment for a portion of the project site, Annexation and Development Agreement for approximately 909.0 acres predominately in farmland and rural residential uses. The project is bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp Road to the south. The Department has the following comments:

Hydraulics

The Department is not inclined to accept any proposal to enter the State right-of-way (R/W) to make modifications to levees and structures that may adversely impact the highway drainage system. Additional alternatives should be presented in the proposal. All alternatives should then be presented to Caltrans (CT) Structures for a formal review or a meeting held with CT Structures involvement. CT-1

Any modifications as proposed would also need CT Legal review, as floodplain modification may be a liability issue for the State. Since the State has drainage waters that empty into the sloughs in this area, there may be additional impacts to the roadway drainage system that ate not apparent at this time. When detailed plans are developed that address the impacts to the State drainage and structures, please submit then to CT for review through the IGR process. CT-2

At this time there are projects in progress to widen State Route 99 (SR 99) through this area. Coordination with CT widening projects would be advised, since this may have a direct effect on CT-3

your project.

Traffic Operations

The Traffic Impact Study (TIS) has information missing or not documented with regards to the analysis of queues at Interstate-5 (I-5) and SR 99 interchange ramp intersections. Even though some of the Synchro reports or Corsim summaries in the Appendix have queue lengths, the specific Synchro reports at interchange ramp intersections for EPAP, 2025, or 2035 scenarios "With Mitigation" do not include the queue lengths in the analysis reports. The analyzed queue lengths for the "with mitigation" conditions should be included to be able to verify queue lengths versus available storage capacity, and additionally to determine if any mitigation related to queue storage would be necessary. CT-4

The DEIR proposes the development install a traffic signal at I-5/Mathews Road southbound (SB) ramps intersection (4.7.4), which is to be coordinated with the northbound (NB) ramp intersection. However the proposed mitigation (4.7.5) at the NB ramps only recommends fair share. The funding and construction of both signals need to be coordinated so that both NB and SB intersections are signalized concurrently. CT-5

The DEIR proposes the development install a traffic signal at SR 99/East French Camp Road NB ramps intersection (4.7.13), which is to be coordinated with the SB ramps intersection. However the proposed mitigation (4.7.12) at the SB ramps only recommends fair share. The funding and construction of both signals need to be coordinated so that both NB and SB intersections are signalized concurrently. CT-6

The development's industrial component will directly impact the interchange ramps at SR 99/East French Camp Road with regards to accommodating truck turning movements. The ramps at this interchange will not accommodate Surface Transportation Assistance Act (STAA) trucks; therefore these ramps do not have an STAA designation. Since the development involves industrial facilities which would reasonably be expected to generate STAA truck traffic with subsequent potential significant impacts to the interchange ramps, the project needs to address and mitigate for the potential impacts related to STAA truck traffic. CT-7

Adequate right-of- way and adjacent access control for the proposed year 2035 future SR 99/Dixon Street interchange needs to be preserved from conflicting development which would constrain either the feasible type of interchange alternatives or geometry. CT-8

An Encroachment Permit will be required for work (if any) done within the Department's right of way. This work is subject to the California Environmental Quality Act (CEQA). Therefore, environmental studies may be required as part of the encroachment permits application. A qualified professional must conduct any such studies undertaken to satisfy the Department's environmental review responsibilities. Ground disturbing activities to the site prior to completion and/or approval of required environmental documents may affect the Department's ability to issue a permit for the project. Furthermore, if engineering plans or drawings will be CT-9

part of your permit application, they should be prepared in standard units.

If you have any questions or would like to discuss our comments in more detail, please contact Kathy Selsor at (209) 948-7190 (e-mail: kathy_selsorer@dot.ca.gov) or me at (209) 941-1921.

Sincerely,

Kathy Selsor for

TOM DUMAS, CHIEF
OFFICE OF METROPOLITAN PLANNING

Department of Transportation (April 23, 2008)

Response to Comments:

CT-1: The final design of the project flood control features will take into account the existing highway drainage system and will not adversely impact the existing system. Once detailed plans are developed for the project the plans will be submitted to Caltrans for their review. The project proponent is aware that there is an existing project to widen State Route 99 through the project area and coordination has occurred with the State's consultant (HDR Engineering) to determine the effects of the project on the proposed flood control features.

CT-2: See response to CT-1.

CT-3: Improvements constructed within the state highway right-of-way will be coordinated with Caltrans.

CT-4: Vehicle queue worksheets for interchange locations where mitigation is required are attached and the results are summarized below. The ultimate interchange configuration for each intersection will be determined through the Caltrans Project Study Report (PSR) and Project Approval/Environmental Document (PA/ED) process to which the Project will contribute their fair share through the payment of the City's traffic impact fee.

Intersection		Movement	EPAP With Mitigation		2025 With Mitigation		2035 With Mitigation	
			AM	PM	AM	PM	AM	PM
15.	SR-99/Arch-Airport Road	Eastbound Left Westbound Left Northbound Southbound	No Impact		350 200 450 375	675 150 350 125	No Impact	
18.	I-5 Southbound Ramps/Mathews Road	Westbound Left Southbound	200 250	150 225	75 300	75 175	No Impact	
19.	I-5 Northbound Ramps/Mathews Road	Eastbound Left Northbound	150 175	450 200	75 150	150 100	775 450	125 125
27.	SR-99 Southbound Ramps/French Camp Road	Eastbound Left Southbound	275 225	300 250	200 100	350 325	No Impact	
28.	SR-99 Northbound Ramps/French Camp Road	Eastbound Left Southbound	150 100	150 100	325 125	400 250	No Impact	
33.	I-5 Southbound Ramps/Roth Road	Westbound Left Southbound	50 100	100 300	250 100	175 225	No Impact	
34.	I-5 Northbound Ramps/Roth Road	Eastbound Left Northbound	50 50	75 450	225 150	150 600	No Impact	
Note: 95th Percentile vehicle queue as calculated by Synchro 6.0 in feet.								

CT-5: Deficient operations are projected to occur at the I-5/Mathews Road Northbound Ramp intersection prior to the addition of project traffic and the addition of project traffic would worsen an already deficient condition. However, given that Mitigation Measure 4.7.4 cannot be implemented without Mitigation Measure 4.7.5, the Project Applicant shall be required to install traffic signals (with coordination) at both the northbound ramps and the southbound ramps. Should other projects identify impacts at these locations, they would be required to contribute their proportionate cost to the improvements.

CT-6: Deficient operations are projected to occur at the SR-99/French Camp Road Southbound Ramp intersection prior to the addition of project traffic. The addition of project traffic would worsen an already deficient condition. However, given that Mitigation Measure 4.7.13 cannot be implemented without Mitigation Measure 4.7.12, the Project Applicant shall be required to install traffic signals at both the southbound ramps and the northbound ramps. Should other projects identify impacts at these locations, they would be required to contribute their proportionate cost to the improvements.

CT-7: In the near-term, truck access from SR-99 to the industrial portions of the site would occur via the Arch Road interchange which has recently been reconstructed and is a designated STAA route. All trucks accessing the site from SR-99 would be required to exit at Arch Road. Reconstruction of the French Camp Road/SR-99 interchange would be required to provide for STAA truck access. The Project applicant will contribute their fair share to those improvements with the payment of the traffic impact fee.

CT-8: The ultimate configuration and right-of-way needs for the proposed SR-99/Dixon Street interchange will be determined through the PSR (Project Study Report) process. Additionally, detailed site plans for the industrial portion of the project have not yet been developed. The ultimate project site plans will preserve the maximum right-of-way needed to construct an interchange at this location, to ensure that development on the site would not encroach into or constrain future interchange development.

CT-9: Comply with the California Environmental Quality Act (CEQA) and permitting required by the State Department of Transportation.

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE
A. G. Kawamura, Secretary

TRANSMITTED BY FACSIMILE

April 21, 2008

Ms. Jenny Liaw, Senior Planner
City of Stockton
345 N El Dorado Street
Stockton, CA 95202

Subject: Draft Environmental Impact Report (DEIR) for the Tidewater Crossing Development Plan Project- **SCH #2005122101**

Dear Ms. Liaw:

The California Department of Food and Agriculture (CDFA) has reviewed the DEIR for the Tidewater Crossing Plan project. CDFA has as its mission the promotion and protection of California agriculture and the natural resources upon which it depends. From this perspective, we offer the following recommendations for the Final EIR with respect to its treatment of project impacts on agricultural resources and infrastructure.

The proposal is a mixed used use project of residential, commercial and industrial uses on 909 acres of mostly Prime Farmland and Farmland of Statewide Importance. The project will convert approximately 875 acres of agricultural land to non-agricultural uses. Most of this lost farmland will be Prime and Statewide Important farmland, about 865 acres. These are agricultural lands considered by this state-adapted USDA classification system to be the state's finest farmland.

In addition to the project's direct impacts on the loss of farmland, the project will contribute to the cumulative loss of farmland in San Joaquin County and the Delta region. Further, the project will have growth-inducing impacts on nearby farmland by increasing land values and introducing an incompatible land use next to other agricultural lands, creating the potential for land use conflicts and, perhaps, competition for water that could decrease agricultural land values and profitability. Further, the project could increase the maximum possible flood downstream increasing pressures on agricultural levees in the Delta and increasing costs of levee maintenance, again affecting agricultural costs and economic sustainability. Finally, the project could increase traffic volumes on roads that cross the Delta, increasing the difficulty of moving farm equipment and supplies and products in and out of the Delta on already congested roads.

We recommend that additional information be included in the final EIR on the following agricultural-related impacts:

1. Cumulative impacts.

   a. **Agricultural Land Use.** Stockton is the county seat of one of California's top-ten agricultural producing counties. The County is part of the San Joaquin Valley agricultural region that represents 55 percent of the state's total agricultural sales. Yet, San Joaquin County leads the list of California counties in terms of the most high quality farmland urbanized between 1990 and 2004 at 14,888 acres. (American Farmland Trust, Paving Paradise (2007), an analysis of California Department of Conservation's Important Farmland Map Series data)

      The loss of the State's agricultural land base as indicated by these figures makes the cumulative impact analysis of CEQA documents all the more important for informing land use decision-makers of the implications of their decisions. Stockton is surrounded on all sides by Prime Farmland and Farmland of Statewide Importance. Assuming other landowners within and just beyond (as is this project) the City's sphere of influence are encouraged to expect similar entitlement treatment as this project, and receive it, the potential cumulative loss of highly productive farmland in the Stockton region would be significant. CDFA-1

      However, we did not see a comprehensive treatment in the DEIR of the cumulative loss of agricultural land. We recommend that an analysis of similarly situated farmland within and on the edge of the City's sphere of influence be conducted to set the context for a cumulative impact analysis. The GIS-based Department of Conservation's Important Farmland Series map database of San Joaquin County could be used to estimate the total acreage of farmland vulnerable to similar proposals as Tidewater Crossing.

      We recommend that the cumulative analysis take both a county and regional level approach, relying on the California Department of Conservation's Farmland Conversion reports that date back to 1984, for the retrospective component of the analysis. Further, we suggest that the regional cumulative impact analysis consider the historic and reasonably foreseeable loss of agricultural land in the five-county Delta region, again, relying on the Department of Conservation's Farmland Conversion Reports for historic agricultural land conversion. County agricultural commissioners can provide crop yield and value information to document not only the acreage loss, but the economic impacts.

   b. **Greenhouse Gas Emissions and Agricultural Resource Impacts.** We recommend that in either the final EIR's air quality or land use/agriculture sections the cumulative impacts of greenhouse gas emissions from the additional traffic generated by the project on agricultural resources be discussed. Existing CDFA-2

climate change models show that climate warming portends a variety of impacts on agriculture, including loss of microclimates that support specific crops, increased pressure from invasive weeds and diseases, and loss of productivity due to changes in water reliability and availability. Currently, the best sources of information on likely climate change scenarios and impacts on agriculture in California are:

California Air Resources Board
http://www.arb.ca.gov/cc/cc.htm
California Energy Commission
http://www.energy.ca.gov/global_climate_change/index.html
California Department of Water Resources
http://www.waterplan.water.ca.gov/climate/index.cfm

CDFA-2 cont.

We understand that our recommendations go beyond what is normally conducted for a cumulative impact analysis, but given the precedent-setting nature of this project, and the importance of San Joaquin County and Delta-influenced agriculture to the State's agricultural land base, we suggest that such an analysis is warranted.

2. Growth-inducing impacts. The project meets most of the criteria set forth in CEQA as defining a growth-inducing project. The project is precedent-setting, in part due to the shear number of entitlements and exceptions to existing plans and zoning that are required; will result in economic expansion; remove traffic and flood control impediments to growth in the area; and, encroach into an isolated agricultural area. The DEIR does a credible job of documenting these growth-inducing impacts. CDFA-3

We suggest that the final EIR address the following additional indirect growth-inducing impacts:

a. Traffic through the Delta. We did not find any analysis of the potential impacts of 8,282 new residents on highways that cross the Delta to major job centers in the Bay Area, particularly on Highway 4, and to a lesser extent, Highway 12. It seems reasonable to assume that at least a portion of the proposed project's new residents will commute to Bay Area jobs. Highways 4 and 12 are currently used by commuters creating safety hazards for Delta agricultural workers and residents, as well as logistical problems for the movement of agricultural equipment, and supplies and goods. Increased traffic volume congestion on these roads could result in increased costs to Delta growers and adversely affect the sustainability of farming in the Delta, a potentially significant indirect impact on the continuing use of agricultural land in the Delta. We recommend that the final EIR include an analysis of project traffic and its potential growth-inducing impacts on Delta agriculture. CDFA-4

b. Water Resources and Flooding. The DEIR and its associated hydrology report do a good job of describing and documenting the flooding issues affecting project, project impacts on flooding and mitigation measures. We did not see an analysis of the project's indirect impacts on water supply for continuing agricultural uses in the area. In other words, will the project draw on existing agricultural water supplies and decrease the reliability of water supply for ongoing agricultural uses in the project area or other agricultural areas relying on the proposed project's water source(s)?

Also, it was not apparent in our review of the document whether projected sea level rise and climate change–induced changes in the maximum probable flood were taken into account in designing flood impact mitigation measures. Sea level rise will lessen the effectiveness of existing flood control and drainage canals and should be taken into account as these structures are improved as mitigation for this project. If these projected influences on flooding were not taken into account by the hydrologic models used, we suggest that the potential project-caused increases in maximum probable floods be reconsidered, and potential downstream impacts on agricultural land uses, especially those within the Delta that rely on sometimes fragile levees for flood protection, be addressed and, as necessary, mitigated. CDFA-5

3. Farmland Loss Mitigation Measures. We concur with the Department of Conservation's January 2006 comment letter on the Notice of Preparation with respect to mitigation measures that should be considered. The DEIR proposes three mitigation measures for the direct and indirect impacts of the project on agriculture: The payment of a mitigation fee of $9,600 per acre of Prime Farmland, Farmland of Statewide Importance or Unique Farmland converted by the project; a disclosure process to inform prospective project residents of the potential for nuisances resulting from normal agricultural practices on adjacent agricultural lands; and, the use of fences or walls to buffer residential and agricultural uses to address land-use conflicts.

Again, we agree with the Department of Conservation that partial mitigation for the loss of agricultural land due to this project should include at least a one-for-one (in quantity and quality) mitigation for the permanent loss of agricultural land. This is also consistent with the San Joaquin County agricultural mitigation standard recently adopted. CDFA-6

However, it is not clear that the proposed mitigation measure (LU-4) of $9,600 per acre is sufficient to meet this recommended standard, particularly given the recent increase in agricultural land values. In addition, given the growth-inducing and cumulative impacts of the project, we recommend that a greater than one-to-one mitigation be considered, and that the placement of easement protection, to the

extent feasible, be strategic in addressing growth-inducing pressures on adjacent lands designated in local general plans for agricultural use.

Mitigation measure LU-2 has two parts. The first part of the measure essentially calls for a partial project-specific "right to farm ordinance." While not preventing the loss of agricultural land, an effectively crafted disclosure process can provide essential education of urban residents of the importance of agriculture and how it is conducted, resulting in greater tolerance and acceptance of agricultural land uses as neighbors. (University of California Agricultural Issues Center Brief Number 15, County Right-to-Farm Ordinances in California: An Assessment of Impact and Effectiveness (2001))

CDFA-6 cont.

Finally, the second part of mitigation measure LU-2 calls for a fence or wall to separate agricultural and urban land uses. We recommend that this measure, in addition to a physical barrier, include a spatial barrier provided by the project proponent between agricultural uses and residential or commercial uses where people could be exposed agricultural chemicals, smells and dust. The San Joaquin County Agricultural Commissioner should be able to provide guidance on the width of a spatial buffer for the project.

Thank you for the opportunity to comment on the Draft EIR. If you have questions concerning our comments, please contact the Department at (916) 657-4956.

Sincerely,

Steve Shaffer, Director
Office of Agricultural and Environmental Stewardship

cc: Scott Hudson, County Agricultural Commissioner
1868 East Hazelton Avenue
Stockton, CA 95202

Brian Leahy, Assistant Director
Division of Land Resources Protection
California Department of Conservation

California Department of Food and Agriculture (April 21, 2008)

Response to Comments:

CDFA-1: According to the Department of Conservation, approximately 2% of Important Farm Land in San Joaquin County has been converted to urban uses since 1990. Tidewater Crossing, which will convert approximately 900 acres of farmland to urban uses, accounts for less than 0.02% of the total farmland in the county. Therefore, the City believes that cumulatively, the proposed project will not impact regional farmland significantly. Further, the project area is located within the City of Stockton Sphere of Influence, an area intended for urban development as presented in the City's 2035 General Plan. Lands just south of the project site are located within the City of Manteca Sphere of Influence. Consequently, development of the Tidewater Crossing project will not influence the development of adjacent farmland since neighboring areas are either under the jurisdiction of a separate planning entity, or are already scheduled for development by the City of Stockton.

Lastly, the project will be required to participate in the City of Stockton's Agricultural Land Mitigation Program, which requires the applicant to pay fees to conserve agricultural land in the area at a 1:1 ratio. The City established this program and the impact/mitigation fees and ratios as the mechanism to offset losses to agricultural lands and to mitigate impacts to less than significant levels. Therefore, the City believes that the proposed project will not create a cumulative impact regarding agricultural lands.

CDFA-2: Cumulative impacts regarding greenhouse gas emissions have been discussed in detail in the recirculated Global Climate Change section presented in Appendix A.

CDFA-3: Comment noted.

CDFA-4: The impact of the project to SR 4 and SR 12 is expected to be minimal, as less than 1 percent of project traffic is expected to use either facility.

CDFA-5: The proposed development project will have both potable and non-potable water demands which have been quantified in detail in order to assess the impacts (*IWMP, PACE 2007)*. The site is currently being used for agricultural purposes. The crops and approximate acreages currently farmed on the project site are 52 acres of pumpkins, 28 acres of walnuts, 94 acres of alfalfa, 138 acres of tomatoes and 597 acres of corn. The current total non-potable demand (surface water and groundwater) within the project area for agricultural uses is approximately 1,684 AF/yr. Existing wells on the project site supply irrigation non-potable water supplies from groundwater as well as existing surface flows pumped from the adjacent French Camp Slough The proposed project will reduce the non-potable water demand on these existing sources typically utilized for agricultural irrigation sources by 1,115 AF/yr because the estimated project demand is only 569 AF/yr. The total project demand for potable and non-potable water supply for the development at build out is approximately 2,234 AF/yr. The total anticipated supply from existing sources such as the City of Stockton, precipitation, runoff and nuisance flow is 1,959 AF/yr and an estimated 363 AF/yr deficit will need to be made up from

additional sources. All potable water needs will be supplied by the City of Stockton. The estimated potable water demand for the project is approximately 1,755 AF/yr. The City of Stockton will provide the total demand of potable water.

Groundwater in the area of the project site is estimated to be at an elevation of approximately -10 to -20 feet (MSL). The regional groundwater flow direction in the area is generally to the northwest, but groundwater pumping may affect flow directions locally (San Joaquin County Flood Control and Water Conservation District, Lines of Equal Elevation, 2003), as noted by a groundwater depression located east of the site, which controls the groundwater gradient locally. The safe yield for aquifers underlying the Stockton area is estimated to be 0.75 AF/ac/yr of water per acre of land (Leedshill Herkenhoff, 1985). With respect to the Tidewater Crossing project, this suggests that there are approximately 682 AF of water available within the 909-acre site, before exceeding the safe yield of the aquifer. It is anticipated that the City of Stockton will claim this estimated safe yield for their own water supply, and groundwater from the site will not be pumped for non-potable uses. Although the City's groundwater extraction rates are proposed to be within the recommended estimated perennial yield of 0.75 AF/ac/yr and water levels in wells continue to be lower than they were 30 to 40 years ago, the potential for regional overdraft is a concern.

The potable water demand will be met by the City of Stockton through a variety of groundwater and surface water sources. In compliance with requirements described in SB221 and SB610, the City has prepared a Water Supply Assessment (WSA) that will identify the sources of the water that will be delivered to the Tidewater Crossing development. The Water Supply Assessment has concluded that between the City of Stockton Municipal Utilities District (COSMUD), CalWater and San Joaquin County over a 70 year period, 26,595 AF/year of groundwater use takes place on average, this along with meeting the dry year requirements in 2025 provides the conclusion that existing supplies meet existing water demands plus the supply for Tidewater Crossing without exceeding the average sustainable groundwater yield of the aquifer underlying the City of Stockton. The existing conjunctive use program of using Stockton East Water District (SEWD) surface water and City of Stockton Metropolitan Area (COSMA) groundwater supplies shows that sufficient water rights and available groundwater supplies exist for the project.

The backwater effect of the delta is well below the project reach and all flood control measures are beyond the influence of the delta. Anticipated changes in sea level will not reduce the effectiveness of the proposed flood control project. The effects of climate change have not been taken into account as there are no current standards for addressing this issue. The project, as described, meets current state and federal regulations for flood control. Additionally, the project provides safety factors such as freeboard within the levee system and redundant pumping system that take into account more severe storms than the design storm.

CDFA-6: The comment states that a one-for-one mitigation be applied to compensate for the loss of agricultural land due to the proposed project. The City of Stockton Agricultural Land Mitigation Program states that: "For projects of forty (40) acres or more, the in-kind direct purchase/acquisition of an agricultural mitigation easement at a 1:1 ratio and dedication to a qualifying entity shall be required. The Owner/Developer/Successor shall pay the associated administrative, monitoring, and contingency costs identified in the fee study, subject to any inflationary adjustments."

The current fees for the Agricultural Land Mitigation Program, effective May 1, 2008 are as follows:

Residential

Single Family Units	$14,512 per acre of net parcel area
Multiple Family Units	$12,984 per acre of net parcel area
Guest Rooms	$12,984 per acre of net parcel area

Non-Residential

Office/High Density	$12,034 per acre of net parcel area
Retail/Medium Density	$11,889 per acre of net parcel area
Warehouse/Low Density	$10,611 per acre of net parcel area

The comment also states that a greater than one-to-one mitigation should be considered. The City, acknowledging the importance of farmland loss within the area, has instituted its Agricultural Land Mitigation Program. It is the City's belief that a 1:1 dedication of agricultural land is sufficient for development project within the City, including the Tidewater Crossing project.

Finally, the comment states that mitigation measure LU-2 is insufficient, and a spatial barrier between the project and agricultural land uses be implemented. The commentor provides no additional information suggesting the reasons for the insufficiency, as may be required to address this concern, Conversely, the City believes that Mitigation Measure LU-2 is sufficient in reducing this impact to a less than significant level and that no other mitigation is necessary. The 2035 General Plan designates the project area as a Village for future urban development, a spatial barrier between the project and agricultural land uses is required.

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE

1300 I STREET, SUITE 125
P.O. BOX 944255
SACRAMENTO, CA 94244-2550

Public: 916/445-9555
Telephone: (916) 327-7877
Facsimile: (916) 327-2319
E-Mail: lisa.trankley@doj.ca.gov

April 21, 2008

Mike Niblock, Director
Stockton Community Development Department
345 N. El Dorado Street
Stockton, CA 95202

RE: Comments on Tidewater Crossing Draft Environmental Impact Report
SCH # 2005122101

Dear Mr. Niblock:

The Attorney General submits these comments on the Draft Environmental Impact Report (DEIR) for the Tidewater Crossing development (Tidewater or Project) pursuant to the California Environmental Quality Act (CEQA). The Project proposes a new mixed-use development, located on the southern outskirts of Stockton, on what is now agricultural land. As drafted, the DEIR fails to adequately disclose or mitigate impacts from greenhouse gas (GHG) emissions or conventional air pollutants, and thus fails to meet the requirements of CEQA.

GHG and Climate Change

Greenhouse gases accumulate in the atmosphere and cause the trapping of heat near the Earth's surface. Increased atmospheric concentration of these gases causes average temperatures to increase, with adverse impacts on humans and the environment.[1] According to NASA's James Hansen, continuing the current rate of emissions will result in "disastrous effects, including increasingly rapid sea level rise, increased frequency of droughts and floods, and increased stress on wildlife and plants due to rapidly shifting climate zones."[2] The impacts of climate change are

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[1] Intergovernmental Panel on Climate Change, Fourth Assessment Report (IPCC 4th) (2007), Working Group (WG) I, Frequently Asked Question 2.1, *How do Human Activities Contribute to Climate Change and How do They Compare with Natural Influences?* http://ipcc-wg1.ucar.edu/wg1/wg1-report.html

[2] http://www.giss.nasa.gov/research/news/20070530/; see also *Hansen et al., Dangerous Human-Made Interference with Climate* (2007) 7 Atmos. Chem. Phys. 2287–2312 http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_etal_1.pdf.

not limited to remote parts of the world – they are being felt in California today. In California, global warming is causing damage to agriculture, losses to the Sierra snowpack, higher risks of fire, eroding coastlines, and habitat modification and destruction. Global warming affects public health directly, through heat-related illnesses and deaths caused by an increase in the number of hot days and longer heat waves, and indirectly as higher temperatures favor the formation of ozone and particulate matter in areas that already have severe air pollution problems.[3]

The atmospheric concentration of CO_2 is now approximately 385 parts per million (ppm)[4], higher than any time in the preceding 650,000 years, and rising.[5] According to experts, an atmospheric concentration of CO_2 "exceeding 450 ppm is almost surely dangerous" to human life due to the climate changes it will effect, "and the ceiling may be even lower."[6]

The need to make substantial cuts in emissions drives the global targets embodied in the Kyoto Protocol and the State's targets established by Governor Schwarzenegger's Executive Order S-3-05, and AB 32, California's Global Warming Solution Act of 2006. In California, by these authorities, we are committed to reducing emissions to 1990 levels by 2020, and 80% below 1990 levels by 2050. Achieving the first benchmark will require California to reduce emissions by at least 29% below projected levels.[7]

CEQA Obligations

CEQA requires a public agency to accurately identify, analyze, and disclose the adverse impacts of a project. (*Stanislaus Natural Heritage Project v. County of Stanislaus* (1990) 221 Cal.App.3d 692, 712.) In general, an EIR should contain discussions sufficient to advise the decision makers and the public of the nature and importance of the environmental effects being

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[3] A summary of impacts to California, together with citations, is available on the Attorney General's website at http://ag.ca.gov/globalwarming/impact.php.

[4] http://www.esrl.noaa.gov/gmd/ccgg/trends/

[5] IPCC 4th, WG I, Frequently Asked Question 7.1, *Are the Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?* http://ipcc-wg1.ucar.edu/wg1/wg1-report.html

[6] See http://www.nasa.gov/centers/goddard/news/topstory/2007/danger_point.html

[7] California Energy Commission, 2007 Integrated Energy Policy Report, December 2007, at p. 16. See http://www.energy.ca.gov/2007_energypolicy/index.html

discussed, not merely the ultimate conclusion that an effect is significant. (*Assn. of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390). This includes a discussion of direct and indirect effects, impacts on public health, and effects on the resource base. (CEQA Guidelines, § 15126.2.)

"Once a significant effect has been identified, the EIR must propose and describe mitigation measures that will minimize [that effect]." (*Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 360.) Public agencies cannot approve projects that will harm the environment unless the agency has adopted *all* feasible mitigation for that harm. (Pub. Resources Code, §§ 21002, 21081, subd. (a).) Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. (CEQA Guidelines, § 15126.4, subd. (a)(2).)

Global warming is an "effect on the environment" under CEQA. Given the severity of our global warming problem, an individual project's contribution to global warming can be cumulatively considerable and therefore significant.[8]

The DEIR Fails to Disclose or Mitigate Impacts from Greenhouse Gas Emissions

The DEIR briefly discusses climate change and the general implications of climate change for California. The DEIR fails, however, to discuss the GHG emissions the Project will generate, including those from the estimated 45,930 additional daily vehicle trips the project will produce, the energy that a project this size will use (from natural gas consumption, solid waste handling/treatment, electricity generation, and other sources), and from project construction. The DEIR should quantify the GHG emissions that will result from the significant amount of additional Vehicle Miles Traveled (VMT) and these other project sources. DOJ-1

The DEIR discusses potential features of the Project that may affect GHG emissions, such as public transit, energy conservation, water conservation, and school location, but it leaves unanswered basic questions about the timing and design of these elements, making it impossible to analyze what the actual impacts will be. For example, the DEIR does not provide important details about when possible transit facilities will be available to serve the Project and what they would consist of. Likewise, it does not explain what specific energy conservation or water conservation measures will be required. DOJ-2

The DEIR recognizes that the Project has the potential to contribute to an increase in

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[8] See Cal. Pub. Resources. Code, section 21083.05, subd. (a); see also Sen. Rules Comm., Off. of Sen. Floor Analyses, Analysis of Sen. Bill No. 97 (2007-2008 Reg. Sess.) Aug. 22, 2007.

GHG emissions. (Impact AIR-5, p. 4-31.) The DEIR goes on to say, however, that the impact will be reduced to less than significance by the implementation of all mitigation measures in the Land Use, Air Quality, Transportation and Public Infrastructure/Services provisions. (DEIR, p. 4-32.) But the measures identified in these sections are insufficient given the scale of the project's GHG emissions.[9] The Land Use section has no mitigation measures that address or mitigate GHGs. The mitigation in the Air Quality section consists in part of adherence to the San Joaquin Valley Air Pollution Control District local rules, but these rules do not directly address GHG emissions. The section discusses three other minor measures (Appendix E, p. 30), one of which (north/south orientation of buildings) is merely encouraged.. The Transportation (Traffic) section and Public Services Section also have no mitigation measures that would significantly mitigate GHG emissions. DOJ-3

The DEIR then states that a list of recommended mitigation measures from the Attorney General's office *should* be implemented by the project applicant to further reduce GHG emissions, and includes the list of measures as an Appendix. The DEIR does not, however, evaluate whether these measures --or other potential measures-- are feasible. Moreover, it does not specify which measures will actually be required as part of the Project. A DEIR needs to include specific, enforceable mitigation measures.

In addition to onsite mitigation measures, the project proponent could consider funding offsite projects that achieve net reductions of GHG emissions elsewhere in the Central Valley. (The San Joaquin Valley Air Pollution Control District would be an excellent contact to help the applicant identify such projects.) DOJ-4

The DEIR Fails to Disclose or Mitigate Impacts On Air Quality

The DEIR also fails to adequately disclose and mitigate the Project's effects on conventional air pollutants. The air quality in the San Joaquin Valley is among the very worst in the nation; the Valley is classified as in serious nonattainment of the federal standard for ozone (one of only two such areas in the nation), serious nonattainment for PM_{10}, and nonattainment for $PM_{2.5}$. (DEIR, p. 4-14, https://epa.gov/air/oaqps/greenbk.) Such levels of pollution pose a serious threat to public health.

The DEIR presents monitoring data from the closest monitor, Stockton-Hazelton, which shows low levels of ozone and particulate matter. (DEIR, p. 4-17-18.) Unfortunately ozone is a DOJ-5

[9]We recognize that there are certain features built into the design of the Project that will reduce GHG to a small degree, including bike lanes on major streets and the location of some jobs near residences.

pollutant with *regional* scope and effects, whose impacts are not confined to the immediate area of the project. The EIR fails to present any actual ozone data for the entire air basin. Likewise, the DEIR acknowledges that the emissions expected from the Project far exceed the thresholds of significance set by the San Joaquin Valley Air Pollution Control District (App. E, p. 23, Table I), but it does not discuss what the public health impacts of these emissions will be in this already heavily polluted air basin. The DEIR also acknowledges that the Project is inconsistent with the Air Quality Management Plan (AQMP) (DEIR, p. 4-36) and that this inconsistency would "result in a significant long-term air quality impact," (*id.*) but again makes no attempt to estimate what that impact would be. Finally, the DEIR has no meaningful discussion of the cumulative impacts of the Project, together with other projects that have been recently approved or are reasonably expected to be approved, on air quality in the Valley. These conclusory statements are insufficient; the DEIR must inform the decision makers and the public of the nature and importance of the air quality effects being discussed, not merely the ultimate conclusion that they are significant. (*Assn. of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390.)

DOJ-5 Cont.

DOJ-6

DOJ-7

As with the mitigation for GHG emissions, the mitigation measures required in the DEIR for the air quality impacts of the Project are inadequate. The DEIR does not discuss or require any measures to reduce Vehicle Miles Traffic resulting from the project as air quality mitigation, despite acknowledging that the air quality impacts will be significant.

DOJ-8

Please feel free to call us if you have any questions.

Sincerely,

Lisa Trankley

LISA TRANKLEY

Susan L. Durbin

SUSAN DURBIN
Deputy Attorneys General

For EDMUND G. BROWN JR.
Attorney General

State of California Department of Justice (April 21, 2008)

Response to Comments:

DOJ-1: The City agrees that the climate change discussion originally presented in the DEIR was inadequate. For this reason, a separate Global Climate Change section was prepared and recirculated (revised sections are presented in Appendix A). The revised section discusses the project generated GHG emissions, including those from daily vehicle trips, natural gas and energy consumption, solid waste, and other sources.

DOJ-2: The new Global Climate Change section better describes the timing and design of school locations, water conservation, public transit, and energy conservation. Specifically, mitigation measures GCC-1 through GCC-9 call for very specific design elements and conservation measures.

DOJ-3: Impacts (both project and cumulative) regarding greenhouse gas emissions and global climate change have been found to be significant and unavoidable in the revised section provided in Appendix A. Additional mitigation measures have also been added and include specific, enforceable measures.

DOJ-4: The City believes that the addition of extensive mitigation measures presented in the revised Global Climate Change section are sufficient, and funding offsite projects elsewhere in the Central Valley is beyond the project scope and unnecessary.

DOJ-5: Referencing page 4-13 of the DEIR, Climate/Meteorology of the region is described in detail. As noted in the DEIR, air pollutants are directly related to the region's topographic characteristics. Air pollutant concentrations at the closest monitoring station are indicated in the DEIR and based on the discussion and the attainment status for the San Joaquin Valley. Monitoring data at the Stockton/Hazelton monitoring station is similar to other monitoring stations within the San Joaquin Valley.

DOJ-6: Comment noted. As stated in the DEIR, the AQMP's main purpose is to bring the area into compliance with the requirements of federal and State air quality standards. Implementation of the proposed project would contribute to the delay of the attainment in the region.

DOJ-7: According to the San Joaquin Valley APCD guidance document, cumulative impacts are based on the project's consistency with the AQMP and regional emissions consistent with district thresholds. The project would not be cumulatively significant for CO hot-spots, however, because the project exceeds the significance criteria for regional emissions, the proposed project, in combination with other proposed projects would be cumulatively significant as stated on page 4-36 of the DEIR.

DOJ-8: The project applicant will work with the City of Stockton and the local transit agency to implement public transportation to the project site.

SAN JOAQUIN
LOCAL AGENCY FORMATION COMMISSION

LAFCo

1860 E. HAZELTON AVENUE ☐ STOCKTON, CA 95205

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ANALYST
ELIZABETH CONTRERAS

COMMISSION CLERK
LINDA LUND

April 17, 2008

Michael Niblock, Director
Community Development Department, City of Stockton
425 N. El Dorado Street
Stockton, CA 95201

Dear Mike,

The San Joaquin Local Agency Formation Commission (LAFCo) has reviewed the Environmental Impact Report (EIR File 2-05) prepared for the Tidewater Crossing Project dated March 2008 and has the following comments to offer:

San Joaquin LAFCo is a responsible agency and will need to rely upon an Environmental Impact Report prior to carrying out any approvals. In addition to the annexation and sphere of influence amendment applications specified in the Draft EIR, LAFCo will also need to act on an amendment/update to the Municipal Service Review for the area outside the existing sphere boundary. This last step is not necessary if the City of Stockton updates the Municipal Service Review for the new General Plan prior to consideration of this application. LAFCO-1

Prior to preparation of the draft EIR, this office emphasized the need to consider a logical and orderly boundary for annexation. We particularly stressed the need to avoid creating areas that would be difficult to serve as a result of the annexation boundary. The project, as proposed, for all practical purposes merely touches the City of Stockton on the north (about an 800 foot corridor). This configuration creates essentially an island for the adjoining remnant parcels in the northwest corner since the only point of connection to the County is separated by the railroad. The rest of the boundary is also awkward and does not appear to promote the orderly development of the City. We requested that the EIR include, as part of the project description, a more logical boundary. The level of analysis for these added areas need not be at the same level as the project evaluation. The Commission cannot add lands to an LAFCO-2

additional area and the City has pre-zoned the area. Denial of the request could be a likely result if the Commission finds that the boundary does not promote the orderly development of the City. LAFCO-2 Cont.

The EIR addressed a portion of our above concerns through the inclusion of additional land in Alternative 4. Inclusion in an alternative is not the same as including the additional lands in the project description. If the City of Stockton does not adopt this alternative, the EIR may not be responsive to LAFCo's needs. LAFCo may therefore require a subsequent EIR as provided under § 15162 (a) (3) or assume the lead agency role as provided in §15052 (a) (3). LAFCO-3

The EIR evaluates issues associated with annexation and sphere of influence actions thorough a series of "LAFCo review factors". These factors are some of the required determinations that must be made by the Commission pursuant to §56668 of the California Government Code. Several factors were omitted including the extent to which the proposal will affect a city and county in achieving their respective fair share of the regional housing needs [§56668 (l)], environmental justice [§56668(o)], timely availability of water supplies [§56668 (k)], and the ability to provide services [§ 56668 (j)]. Not withstanding these omissions, the determinations are probably best left to the Commission to make. The EIR should provide the information important to LAFCo so that the determinations can be made by the Commission. The EIR should evaluate the applicable policies adopted by the Commission such as those related to Spheres of Influence and Annexation. For example, Annexation Policy #3 which prohibits the creation of boundaries of a proposed annexations or reorganizations which result in areas that are difficult to serve should be evaluated. Likewise, Annexation Policy #4 regarding Development Within Jurisdiction (§56377) should be addressed as it relates to development of existing vacant or nonprime agricultural lands within the existing jurisdiction of a local agency or within the sphere of influence. These policies were recently adopted (September 2007) and reflect the position of the Commission and should be used in the assessment. LAFCO-4 LAFCO-5

Several other LAFCo issues should also be addressed. For example, the project site is served primarily by French Camp Fire Protection District and a small area by Lathrop-Manteca Fire Protection District. A substantial area is not served by any fire protection district. Upon annexation, most but not all areas will be served by the City of Stockton. The project boundary, as proposed, will leave a remnant parcel (201-020-03) without fire protection. This parcel should be included in some fire district. Furthermore, the impact on the Fire Districts which are being detached should be addressed to determine if the loss of revenue will diminish their ability to provide service to the rest of the district. The report also indicates that the City of Stockton response time would be approximately 6-7 minutes. The payment of public facilities fees and consultation after project approval does not provide adequate mitigation for this impact. The Municipal Service Review adopted by the LAFCO-6 LAFCO-7

mitigation for this impact. The Municipal Service Review adopted by the Commission in December 2007 specified a 3-4 minute response time. The report should also address financing options to provide the additional needed police services. The payment of public facilities fees is not a source of revenue for operational costs.

LAFCO-7 Cont.

From LAFCo perspective, the report needs to correlate the availability of water and sewer capacity with project timing. For example, if the Delta Water Supply Project (DWSP) is needed to provide adequate water, then the timing of this project needs to be evaluated. LAFCo needs to know how much water is available now and how much the project will consume before the DWSP comes on line. If insufficient water is available, perhaps the annexation request is premature. A similar issue is associated with wastewater treatment. There needs to be clear correlation with the capacity of wastewater treatment plant and the timing of annexation.

LAFCO-8

Thank you for the opportunity to comment on the Draft EIR. Please call (209) 468-3198 if you have any questions.

Sincerely,

James E. Glaser

James E. Glaser
Executive Officer
San Joaquin LAFCO

San Joaquin Local Agency Formation Commission (April 17, 2008)

Response to Comments:

LAFCO-1: The City is processing a sphere of Influence Amendment which includes an update to the Municipal Service Review for the 2035 General Plan. LAFCO is expected to review and take action on the Sphere of Influence in the fall of this year.

LAFCO-2: The commenter states that the project boundary does not provide a logical and orderly boundary for annexation, and stressed the need to avoid creating areas that would be difficult to serve as a result of an irregular annexation boundary.

The project's western boundary has an irregular shape because a majority of the property owners within that area stated a preference toward not having their property planned for urban uses and voiced strong opposition regarding annexation of their property to the City of Stockton. The properties adjacent to the western boundary of the project are primarily rural-residential in character consisting of hobby farms and individuals and families that enjoy an agricultural-residential lifestyle. As such, those property owners oppose participating in a process that would result in a redesignation of their property to an urban land use. As housing and land prices have increased in recent years, some of these properties have been built upon or seen extensive renovation of residential structures and outbuildings. As a result, this area has become an area of active "infill" activity. As time passes, the area may gradually develop and potentially could take on a more urban character. If that scenario occurs, the residents may seek annexation to the City of Stockton in order to receive public infrastructure and services. Trying to include the property within the project boundary and annex the property now, much of which is 5-acres in size, would result in the creation of an area that would be difficult to efficiently serve with public infrastructure and services due to the sprawling nature of those properties and the expense of providing the infrastructure and services. Additionally, the property owners of those properties located west of the project's proposed boundary consider themselves to be aligned with the image and identity of the town of French Camp, not an extension of the City of Stockton. Respecting the character of their existing neighborhood is consistent with the focus of the City's 2035 General Plan District & Villages Element, which among other factors seeks to "support the maintenance of existing neighborhoods."

LAFCO-3: The DEIR addressed the logical and orderly boundary for annexation covered by additional land in Alternative 4.

The project boundary, as proposed, presents a logical extension of the City's urban area facilitating orderly development and the efficient provision of public infrastructure and delivery of public services. The Draft Environmental Impact Report presents a detailed analysis of the project's potential significant effects and identifies mitigation measures and reasonable alternatives to avoid the significant effects. One such alternative; labeled as Alternative 4, addresses design issues raised during the review of the project, including revising the boundary of the project to include non-applicant properties. If it is determined by the Lead Agency (City of Stockton) that the boundary, as proposed, would result in significant effects associated with the provision of infrastructure and delivery of services, then the Lead Agency has the option to direct that all or a part of the alternative should be

considered on the basis of mitigating a significant effect. The assessment of Alternative 4 is presented at a program level of environmental review. More specific project environmental document review may be required depending upon the decision for this alternative.

LAFCO-4: The commenter states that several "LAFCo Review Factors" were not evaluated within the DEIR, including the extent to which the proposal will affect a city and county in achieving their respective fair share of the regional housing needs [§56668(1)], environmental justice [§56668(o)], timely availability of water supplies [§56668(k)], and the ability to provide services [§56668(j)].

Refer to response LAFCo-9 regarding the timely availability of water supplies. If approved, the project will assist the City in meeting its low and moderate income housing goals by providing 264 units of multi-family housing. The applicant has submitted to the LAFCo Executive Officer a City Services Plan, which outlines the manner in which the City will provide a full range of municipal services upon annexation.

LAFCO-5: The commenter states that the DEIR should evaluate LAFCo Annexation Policy #3, which prohibits the creation of boundaries of a proposed annexation or reorganization that results in areas that are difficult to serve. Likewise, LAFCo Annexation Policy #4 regarding development within jurisdiction (§56377) as it relates to development of existing vacant or nonprime agricultural lands within the existing jurisdiction of a local agency or within the Sphere of Influence.

Refer to responses LAFCo-2 and LAFCo -3. Additionally, the entire project planning area lies within the Stockton Urban Service Area boundary and was identified in the City of Stockton 1990 General Plan Policy Document (as amended November 3, 1998) as lying within the "Future Growth Area" of the City. As stated in that document: "It is this area that the City intends to direct its future residential/commercial growth through the year 2010 and beyond." The document also shows the Project area to lie entirely within the Planning Area Boundaries for the City of Stockton. The entire project planning area is shown on the recently adopted 2035 General Plan Land Use Diagram as lying within the Urban Service Area boundary of the City and the City's Sphere of Influence. The Urban Service Area Boundary (USAB) and sphere of Influence (SOI) for the 2035 General Plan will be reviewed by LAFCO and will consider the appropriateness of the requested actions in fall of this year. The project would not be required for the amendment of SOI if the above-noted request is approved by LAFCO. The proposed land uses of the project are consistent with the land use designations identified on the General Plan Land Use Diagram.

LAFCO-6: The commenter states that if reorganization was approved removing certain property from the protection of the French Camp McKinley Fire Protection District and the Lathrop-Manteca Fire Protection District and annexing the project to the City of Stockton that the proposed annexation would not include a remnant parcel (APN 201-020-03), which would be left without fire protection.

Properties within the proposed plan are served by two fire protection districts, including French Camp McKinley fire Protection District (APNs 177-050-05, 08, 09 & 25; and APNs 177-100-07, 35) and Lathrop-Manteca Fire Protection District (APN 177-100-03). Three properties within the proposed plan are not currently within a fire protection district (APNs 177-110-04, 05, 201-020-01). One

Assessor Parcel (i.e. 201-020-03), which lies outside of the project area but adjacent to its boundary will remain "unprotected". The City of Stockton Fire Department has indicated that they will provide service to the parcel if the occupants are under life threatening or dangerous circumstances. It is the function of the Local Agency Formation Commission to determine which local fire district can best serve the parcel. Once that determination has been made, LAFCo should initiate a reorganization to annex the property into the appropriate district.

LAFCO-7: The commenter states that the impact on the Fire Districts which are being detached should be addressed to determine if the loss of revenue will diminish their ability to provide service to the rest of the district. The commenter also states that the DEIR should review financing options to address the operational needs of the fire and police departments in order to improve upon service provision and response times.

Table 1 shows the amount of the Ad Valorem Property Tax and other fixed charges or assessments applied by the fire districts to each parcel based upon information gathered from property tax bills and disaggregated by Tax Rate Area. Both Fire Districts receive approximately 0.094% of the 1.0% Ad Valorem Property Tax. The French Camp McKinley Fire Protection District also applies minimal fixed charges. The Table shows that the annual tax/charges/assessments collected by the French Camp Fire Protection District for the six properties which it serves are $54,812.49. The districts total budget for FY 07-08 is $1,123,616.22. The total tax which is collected represents 4.88% of the total budget. Similarly, the annual tax collected by the Lathrop-Manteca Fire Protection District for the one property that it serves is $2,990.81. The total FY 07-08 budget for the district is $5,332,000. The total tax that is collected represents 0.056% of the districts budget.

Table 1: Tidewater Crossing Fire District Annual Property Tax Collection

French Camp Fire District							
APN	**TRA**	**07-08 Tax Bill**	**Ad Valorem 1.0%**	**Ad Valorem Distribution to Fire District**	**Fire District Share of Ad Valorem**	**Fire District Fixed Charges or Assessments**	**Total Payments to Fire District**
177-050-250-000	102-093	$56,388.46	$51,720.12	0.094038	$4,863.66	$12.00	$4,875.66
177-100-070-000	102-093	$49,766.16	$47,598.30	0.094038	$4,476.05	$68.94	$4,544.99
177-100-350-000	102-093	$43,050.70	$41,233.50	0.094038	$3,877.52	$12.00	$3,889.52
177-050-050-000	102-034	$493,290.06	$438,600.00	0.094035	$41,243.75	$12.00	$41,255.75
177-050-090-000	102-034	$16,267.48	$2,062.12	0.094035	$193.91	$12.00	$205.91
177-050-080-000	102-040	$1,089.64	$307.62	0.093198	$28.67	$12.00	$40.67
							$54,812.49

Lathrop-Manteca Fire District							
APN	**TRA**	**07-08 Tax Bill**	**Ad Valorem 1.0%**	**Ad Valorem Distribution to Fire District**	**Fire District Share of Ad Valorem**	**Fire District Fixed Charges or Assessments**	**Total Payments to Fire District**
177-100-030-000	120-028	$33,027.12	$313,620.00	0.094586	$2,990.81	$0.00	$2,990.81
Unserved APN's							
APN	**TRA**	**07-08 Tax Bill**	**Ad Valorem 1.0%**	**Ad Valorem Distribution to Fire District**	**Fire District Share of Ad Valorem**	**Fire District Fixed Charges or Assessments**	**Total Payments to Fire District**
177-110-050-000	102-087	$852.62	$99.72	N/A	N/A	N/A	N/A
177-110-040-000	102-035	$56,019.84	$6,573.34	N/A	N/A	N/A	N/A
201-020-010-000	102-017	$31,959.88	$30,600.00	N/A	N/A	N/A	N/A

Note: The assessment for the French Camp Fire District is calculated based upon a fixed charge per range of acreage for raw land. Parcels with structures are charged a rate per building footprint square foot as well as a fixed charge per range of acreage for raw land.
Source: FY 07-08 Project tax bills as of 5/9/08, and County of San Joaquin MPTS 2000 Property System-Auditor Tax Increment Distribution Report Model FINAL 2006 received 3/27/07.

Firstly, the 6 to 7 minutes response time indicated in the DEIR was referring to the project's secondary response fire station, located more than 5 miles away from the project. The project's primary response fire station, located less than 4 miles away, would be expected to respond within the standard 3 to 4 minutes.

Secondly, the DEIR is not the appropriate planning document to review financing options to address the operational needs of the fire and police departments and their ability to provide service to the proposed plan. As a component of the Master Plan prepared for the project, the City of Stockton requires the preparation of a Public Financial Facilities Plan (PFFP) and Fiscal Impact Analysis (FIA). The PFFP and FIA will assist in determining whether the proposed project will provide adequate tax dollars in order to address the ongoing operational needs of public safety and protection services within the proposed project.

LAFCO-8: The commenter states that from LAFCo perspective, the DEIR needs to correlate the availability of water and sewer capacity with project timing. LAFCo needs to know how much water is available now and how much the project will consume before the Delta Water Supply Project (DWSP) comes on line. Similarly, there needs to be a clear correlation regarding the availability of capacity associated with the wastewater treatment plant.

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet existing demands, anticipated demands from approved projects and tentative maps, and the demands of the proposed project. Water Codes Sections 10910 through 10915 require land use lead agencies to: 1) identify the responsible public water purveyor for a proposed development project, and 2) request from the responsible purveyor, a "Water Supply Assessment" (WSA). The purpose of the WSA is to demonstrate the sufficiency of the purveyors' water supplies to satisfy the water demands of the proposed development project, while still meeting the current and projected water demands of existing customers.

The City of Stockton Municipal Utilities District (COSMUD) is the water purveyor for the proposed project. COSMUD prepared a WSA for the project originally in January 2006 and revised in February 2008. The analysis contained in the WSA resulted in a COSMUD determination that it has sufficient water supplies to meet the water demands of the project.

City General Plan Policy PFS-2.13 ensures that there is a correlation between the approval of an entitlement and the availability of an adequate water supply. The policy states that prior to the recordation of any final small lot subdivision map, or prior to City approval of any project-specific discretionary approval or entitlement required for a nonresidential land use, the City or project applicant shall demonstrate , based on substantial evidence, the availability of a long-term, reliable water supply from a public water system for the amount (Phase) of development that would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement.

Collected wastewater from the proposed project will ultimately be transported to the Regional Wastewater Collection Facility (RWCF) for treatment and disposal. The RWCF has a current dry-weather flow capacity of 42 mgd and actual dry-weather flows are estimated at 35 mgd. The City is in the process of upgrading the RWCF to a capacity of 48 mgd. It is estimated that at buildout the proposed project would generate 5.3 mgd peak flow. An engineering analysis prepared for the proposed project concluded that there would be adequate treatment and disposal capacity at the RWCF to receive the proposed project's sanitary sewer flows.

City General Plan Policy PFS-3.8 ensures that there is a correlation between the approval of an entitlement and the availability of an adequate wastewater removal system. The policy states that prior to the recordation of any final small lot subdivision map, or prior to City approval of any project-specific discretionary approval or entitlement required for a nonresidential land use, the City or project applicant shall demonstrate , based on substantial evidence, the availability of a long-term, reliable wastewater collection system for the amount (Phase) of development that would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement.

SAN JOAQUIN RTD

P.O. Box 201010 | Stockton, California | 95201
209.948.5566 | 209.948.8516 [fax] | www.sanjoaquinRTD.com

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APR 21 2008
By

April 21, 2008

Lead Agency
City of Stockton
C/o Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202

Attn: Michael Niblock, Director Community Development Department
Jenny Liaw, Senior Planner

The San Joaquin Regional Transit District (RTD) appreciates the opportunity to review and comment on the Tidewater Crossing Project (RTD Reference #05 2039004-122205-012306-51)

In reviewing the Draft Environmental Impact Report (DEIR), RTD has the following comments to make regarding the project impacts listed:

- **Impact of Increased Demand for Transit Service**
  *RTD believes the impact of this new development at 909 acres, including 369 acres of residential and 540 acres of commercial/industrial development and approximately **2,663 residential units** should be considered **significant** as RTD is the major provider of public transportation in Stockton and San Joaquin County. Such a large and new population center will create **new demands** for transit service between this development and city-wide and regional employment, medical, retail, and commercial centers. RTD currently operates only one daily fixed deviated transit route south of Arch Road and west of State Highway Route 99.*

RTD-1

- **Impact of Residential and Commercial/Industrial Development on Student Transportation**
  *New residential and commercial development will necessitate the establishment of RTD transit connections to area high schools, California State University Stanislaus- Stockton, University of the Pacific, and other area secondary education locations **if** funding sources for this additional service are identified. RTD fixed route transit service is the primary means of transportation for Stockton Unified High School Students to attend school,*

RTD-2

*travel to work, and for shopping and recreational trips, Therefore RTD believes this impact should be considered **significant**.*

RTD-2 cont.

- **Impact of New Residential Development and San Joaquin Delta College** *RTD currently transports significant portions of San Joaquin Delta College's Stockton Campus population. RTD's ability to provide connecting transit services to the Stockton Campus would be **significantly impacted** by the establishment of approximately 2,663 residential units, a campus would be dependent upon the identification of funding sources that would enable RTD to provide the service.*

The DEIR speaks to transit service and transit infrastructure, vehicle emissions, air quality, and air quality mitigation specifically in the following sections:

DEIR Section 3

Page 3-24 states under the heading **Public Transit** that "The Tidewater Crossing Master Development Plan Area will support the provision of transit service by incorporating bus turnouts and shelters along South Airport Way and East French Camp Road. The proposed locations for bus stop/turnouts will be coordinated with SJRTD."

RTD wants to ensure that the developer pays its fair share of transit infrastructure as cited in the City of Stockton's 2035 General Plan (citation below). RTD also wants to ensure coordination between it and the developer in the planning and location of transit services and infrastructure.

RTD-3

"The Stockton Draft 2035 Transit system proposes major local/feeder bus service along East French Camp Road and South Airport Way. The Draft 2035 Transit System prepared by the City of Stockton shows a new transit hub near the Stockton Metropolitan Airport along South Airport Way. The project proponent, land owners, and/or successors-in-interest will be required to coordinate with SJRTD during the formulation of any large lot tentative maps to determine the best suited locations for bus turnouts."

Coordination between the project developer and RTD is imperative as RTD is currently exploring transit service plans for the area impacted by this proposed project. Development of maps with consideration for transit needs should help avoid needless duplicative and wasteful planning efforts.

DEIR in Section 4

Page 4-31 the DEIR states under the heading **Potentially Significant Impacts** that this project "could contribute on a cumulative basis to an increase in atmospheric greenhouse gas emissions such that the project-related impact would be potentially significant."

Page 4-33 the DEIR states in a bullet point under the heading **Land Use Measures** that this project will:

- Incorporate public transit into project design

As previously stated, RTD wants to ensure coordination between it and the developer in the planning and location of transit services and infrastructure. This should help avoid needless duplicative and wasteful planning efforts. RTD-3 cont.

Also on Page 4-33 the DEIR states in bullet points under the heading, **Transportation & Motor Vehicles** that this project will:

- Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading, and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides

  The inclusion of park-and-ride lots in new developments, certainly of the size of this proposed development, would support RTD's efforts not only to provide intracity service, thereby reducing traffic impacts within City limits, but also support RTD's provision of interregional (commuter) bus service, which reduces traffic impact on regional freeways and proposed expressways. RTD-4

And,

- Provide the necessary facilities and infrastructure to encourage the use of low or zero emission vehicles (e.g., electric vehicle charging facilities)

  RTD wants to note that a significant percentage of its intra- and intercity services (including most significantly, RTD's Bus Rapid Transit service Metro Express) use low-emission diesel-electric hybrid buses. Facilities and infrastructure that would support these services, BRT in particular, would include bus shelters with Fare Vending Machines, as found along the Metro Express corridor.

Furthermore,

Page 4-35 the DEIR states:

"this project will result in total (vehicular and stationary) daily emissions exceeding the annual thresholds established by the SJVAPCD."

Page 4-36 the DEIR states:

"Construction of the project would contribute cumulatively to the local and regional air pollutants, together with other projects under construction...it is anticipated that these additional emissions would result in significant cumulative air quality impacts." RTD-5

Page 4-36 concludes by stating in bold print that:

"Feasible mitigation measures do not exist that would reduce these impacts to less than significant level."

*RTD fixed route transit service could provide mitigation for these factors **if** funding is identified to incorporate into the development a sufficient level of service and transit/pedestrian infrastructure.*

City of Stockton General Plan

In conclusion, the City of Stockton's recently adopted General Plan includes many elements supportive of transit. The section, "Transportation and Circulation," has several Goals and Policies that support RTD's positions described above by addressing the provision and/or funding of transit infrastructure in new development, including: RTD-6

- TC-1.5, in which the City will work with other agencies to secure gap funding for transit
- TC-1.10; "All new development projects shall be required to pay their fair share of the cost of constructing needed transportation and transit facilities, and contributing to ongoing operations and services..." and concludes that "This requirement shall be made a condition of project approval."
- TC-4.2 ensures that larger new developments provide bus pullouts and shelters along major streets
- TC-4.4 describes several transit related design elements for new development projects, including
  - Roadway construction that permits transit connectivity
  - Areas for bus stops
  - Provision of sheltered bus stops with new development
  - Provision of park-and-ride facilities, and
  - Required coordination between developers and RTD for the provision of transit services

RTD-6 cont.

- The "Districts and Villages" portion of the General Plan has Policies concerning transit services as well:
  - DV-5.6 states that "New villages shall connect to and support a citywide transit system. Transit stops shall be located along major corridors and in each village center."
- Regarding funding of infrastructure, DV-5.10 states that "New development will be required...[to] provide fair share contributions towards existing and future improvements necessary to serve the development."

Thank you for the opportunity to respond to this proposal. Please contact Nate Knodt, Planning Manager, at 209-948-5566, ext. 652, if you have any questions or require additional informational.

Sincerely,

Nate Knodt
Planning Manager

Cc: Donna Kelsay, General Manager/CEO

SAN JOAQUIN RTD

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CITY OF STOCKTON
COMMUNITY DEVELOPMENT DEPT.

April 1, 2008

Ms. Jenny Liaw, Sr. Planner
Community Development Department
Planning Division
425 N. El Dorado Street
Stockton, CA 95202-1997

Dear Ms. Liaw:

The San Joaquin Regional Transit District (RTD) appreciates the opportunity to review and comment on TM34-06, Manthey Road Subdivision at Weston Ranch Towne Center, RTD Reference #052039004-032108-032708-120-2.

RTD staff has completed its review of the map and concludes that the site is currently served by Routes 26, 52, 55, and 90. Assuming sidewalks are connected to the local pedestrian network, transit access is sufficient.

Thank you for the opportunity to respond to this proposal. Please contact Nate Knodt, Planning Manager at 209-948-5566, ext. 652 if you have any questions or require additional information.

Sincerely,

Nate Knodt
Planning Manager

Cc: Donna Kelsay, General Manager/CEO

San Joaquin Regional Transit District (April 21, 2008)

Response to Comments:

RTD-1: The project applicant has incorporated transit features into the project site and welcomes the opportunity to discuss with RTD the optimal locations of transit amenities within the site. The 2035 General Plan proposes a transit hub at the Airport and a major local/feeder service route along S. Airport Way and on E. French Camp Road east of S. Airport Way. The developer will pay fair share contributions toward existing and future transit improvement to serve this new development and the vicinity. Increased transit use will have the benefit of reducing vehicle trips through the study area, potentially reducing green house gas emissions from the project.

RTD-2: Please see response RTD-1.

RTD-3: Please see response RTD-1.

RTD-4: The developer will coordinate with the RTD to include a park-and-ride lot in the new development at the final design state. The design of the infrastructure and facilities will accommodate Rapid Transit Service in the new community.

RTD-5: Since the Draft EIR was circulated, the City determined that the air quality and global climate change section warranted additional analysis and mitigation. As a result of this determination, portions of the DEIR were recirculated for public review. Specifically, new air quality and global climate change sections were prepared concluding that for global climate change, the project would have a significant and unavoidable project and cumulative level impact that could not be completely mitigated. Nonetheless, additional mitigation has been included in the recirculated DEIR for transit and other vehicular related issue areas. The proposed project positions the highest residential densities and most intense non-residential uses near locations that are ideal for transit. As the project develops, fixed route transit service will be looked upon as an alternative mode of transportation easily accessible by a majority of project residents.

RTD-6: The mitigation measures included in the recirculated DEIR are intended to address the goals and policies outlined in the 2035 General Plan Transportation and Circulation element. The project applicant will work with the City and RTD to ensure that the appropriate transit elements are incorporated into the final designs of the project to encourage the use of transit.

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov

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January 18, 2006

Mark Martin, Project Manager II
Stockton Community Development Department
345 North El Dorado Street
Stockton, CA 95202

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Tidewater Crossing Master Development Plan
SCH# 2005122101

Dear Mr. Martin:

The Department of Conservation's Division of Land Resource Protection (Division) monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. The Division has reviewed the above NOP and offers the following recommendations for the DEIR with respect to the project's potential impacts on agricultural land.

The proposed project involves development of 388 acres for residential purposes, 352 acres for industrial purposes, and additional acreage for related uses. The project also involves approvals for a general plan amendment, a master development plan, prezoning, a tentative tract map, sphere of influence change, annexation and a development agreement.

The NOP notes that the project will result in conversion of 352 acres of Prime Farmland and 520 acres of Farmland of Statewide Importance. The potential mitigation measure for these impacts notes that the project will be required to participate in the mitigation mechanism proposed by an agricultural impact/land loss policy, if such a policy is approved.

The Division recommends that the mitigation measure be revised to show a more proactive approach to mitigation. Since the project is not the first or sole Stockton project proposing annexation or conversion of agricultural land, the city should be actively researching and developing an agricultural land loss mitigation policy, mechanisms to implement the policy, and a timeframe for implementation. DOC-1

The Division recommends that the purchase of agricultural conservation easements on land of at least equal quality and size be considered as partial compensation for the direct loss of agricultural land, as well as for the mitigation of growth inducing and cumulative impacts on agricultural land. We highlight this measure because of its growing acceptance and use by lead agencies as mitigation under the California Environmental Quality Act. Mitigation using conservation easements can be implemented by at least two alternative approaches: the outright purchase of conservation easements tied to the project, or via the donation of mitigation fees to a local, regional or statewide organization or agency, including land trusts and conservancies, whose purpose includes the purchase, holding and maintenance of agricultural conservation easements. Whatever the approach, the conversion of agricultural land should be deemed an impact of at least regional significance and the search for mitigation lands conducted regionally, and not limited strictly to lands within the Stockton area.

DOC-1 cont.

Information about conservation easements is available on the Division's website, or by contacting the Division at the address and phone number listed below. The Division's website address is:

http://www.conservation.ca.gov/DLRP/

Of course, the use of conservation easements is only one form of mitigation that should be considered. The following mitigation measures could also be considered:

- Increasing home density or clustering residential units to allow a greater portion of the development site to remain in agricultural production.
- Protecting nearby farmland from *premature* conversion through the use of less than permanent long-term restrictions on use such as 20-year Farmland Security Zone contracts (Government Code Section 51296) or 10-year Williamson Act contracts (Government Code Section 51200 et seq.).
- Establishing buffers such as setbacks, berms, greenbelts, and open space areas to separate farmland from incompatible urban uses.
- Investing in the commercial viability of the remaining agricultural land in the project area through a mitigation bank which invests in agricultural infrastructure, water supplies and marketing.

The Department believes that the most effective approach to farmland conservation and impact mitigation is one that is integrated with general plan policies. For example, the measures suggested above could be most effectively applied as part of a comprehensive agricultural land conservation element in the City's general plan.

Mitigation policies could then be applied systematically toward larger goals of sustaining an agricultural land resource base, and economy. Within the context of a general plan mitigation strategy, other measures could be considered, such as the use of transfer of development credits, mitigation banking, and economic incentives for continuing agricultural uses. DOC-1 cont.

Thank you for the opportunity to comment on the NOP. If you have questions on our comments, or require technical assistance or information on agricultural land conservation, please contact the Division at 801 K Street, MS 18-01, Sacramento, California 95814; or, phone (916) 324-0850.

Sincerely,

Dennis J. O'Bryant
Acting Assistant Director

cc: San Joaquin County RCD
3422 W Hammer Lane, Suite A
Stockton, CA 95219

Department of Conservation (April 17, 2008)

Response to Comments

DOC-1: The City of Stockton adopted an Agricultural Land Mitigation Program for mitigating the loss of agricultural land through conversion to private urban uses, effective May 1, 2007. The program requires that, for projects of 40 acres or more, the proponent must provide in-kind, direct purchase/acquisition of an agricultural mitigation easement at a 1:1 ratio and dedicate it to a qualifying entity. As stated in Mitigation Measure LU-3 (Section 4.6), the proposed project will participate in the City's Agricultural Land Mitigation Program.

The current fees for the Agricultural Land Mitigation Program, effective May 1, 2008 are as follows:

Residential

Single Family Units	$14,512 per acre of net parcel area
Multiple Family Units	$12,984 per acre of net parcel area
Guest Rooms	$12,984 per acre of net parcel area

Non-Residential

Office/High Density	$12,034 per acre of net parcel area
Retail/Medium Density	$11,889 per acre of net parcel area
Warehouse/Low Density	$10,611 per acre of net parcel area

Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

Maureen F. Gorsen, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Arnold Schwarzenegger
Governor

April 17, 2008

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COMMUNITY DEVELOPMENT DEPT.

Ms. Jenny Liaw
Senior Planner
Planning Division
Community Development Department
City of Stockton
345 N. El Dorado Street
Stockton, California 95202-1997

NOTICE OF PREPARATION AND INITIAL STUDY FOR THE TIDEWATER CROSSING MASTER DEVELOPMENT PLAN PROJECT (SCH # 2005122101)

Dear Ms. Liaw:

The Department of Toxic Substances Control (DTSC) has reviewed the document described above that proposes rezoning agricultural property to residential and building residential housing on the land. DTSC recommends that additional research be conducted to determine whether pesticides were used on the proposed development site. The site should be evaluated to determine if and where storage, mixing, rinsing and disposal of pesticides may have occurred and whether contamination exists. DTSC-1

In addition, although DTSC does not regulate pesticides legally applied to crops, if pesticides have historically been used on the property, we strongly recommend that these areas be tested for environmentally persistent pesticides such as organic pesticides and metals prior to development. The results of any testing should be evaluated to determine if concentrations present in soils will be protective of residents and workers.

Please contact me by email at *tmiles@dtsc.ca.gov* or by telephone at (916) 255-3710, if you have any questions.

Sincerely,

Tim Miles

Tim Miles
Hazardous Substances Scientist

cc: See next page.

cc: Ms. Donna Heran
Director
San Joaquin County Environmental Health Department
304 East Weber Street
Stockton, California 95202

Planning & Environmental Analysis Section (PEAS)
CEQA Tracking Center
1001 I Street, 22nd Floor
P.O. Box 806
Sacramento, California 95812-0806

State Clearinghouse
Office of Planning and Research
1400 10th Street, Room 121
Sacramento, California 95814-0613

Department of Toxic Substances Control (April 17, 2008)

Response to Comments

DTSC-1: Per DTSC recommendation, the City will add a condition of approval to the Tentative Map requiring further research and testing regarding the use of pesticides and the potential residual presence of those pesticides. This is considered standard practice for project in the City of Stockton involving agricultural lands.

S J C O G, Inc.

555 East Weber Avenue • Stockton, CA 95202 • (209) 468-3913 • FAX (209) 468-1084

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COMMUNITY DEVELOPMENT DEPT.

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP)

SJMSCP RESPONSE TO LEAD AGENCY ADVISORY AGENCY NOTICE TO SJCOG, Inc.

To: Jenny Liaw, City of Stockton Community Development Department

From: Anne-Marie Poggio-Castillou, SJCOG, Inc.

Date: April 14, 2008

Re: **Lead Agency Project Title:** Tidewater Crossing Master Development Plan Project

Lead Agency Project Number: LAFCO: A-05-1

Assessor Parcel Number(s): 177-050-05, 177-050-08, 177-050-09, 177-050-25, 177-100-02, 177-100-03, 177-100-07, 177-110-04, 177-110-05, 201-020-01

Total Acres to be converted from Open Space Use: ± 909 acres

Habitat Types to be Disturbed: Agricultural Land

Species Impact Findings: Findings to be determined by SJMSCP biologist.

Dear Mrs. Liaw:

SJCOG, Inc. has reviewed DEIR2-05 this project involves the development of an industrial/residential project on lands south of and contiguous to the Stockton Metropolitan Airport. The proposed project would guide development of an industrial, commercial, residential, community in six separate phases. The project will contain ± 909 acres with industrial, commercial, low/medium/high density residential uses and include 224 acres of industrial, 17 acres of commercial, 265 acres of low density residential, 94 acres of medium density residential, 10 acres of high density residential, 62 acres of sloughs and easements, 35 acres of parks and open space, 19 acres of elementary school, 8 acres of railroad corridor and 95 acres of flood control basin. This project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east. Union Pacific Railroad to the west and East French Camp Road to the south.

The City of Stockton is a signatory to San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Participation in the SJMSCP satisfies requirements of both the state and federal endangered species acts, and ensures that the impacts are mitigated below a level of significance in compliance with the California Environmental Quality Act (CEQA). Although participation in the SJMSCP is voluntary, lead agents should be aware that if project applicants choose against participating in the SJMSCP, they will be required to provide alternative mitigation in an amount and kind equal to that provided in the SJMSCP. SJCOG-1

It should be noted that two important federal agencies (U.S. Army Corps of Engineers and the California Regional Water Quality Control Board) have not issued permits to the SJCOG and so payment of the fee to use the SJMSCP will not modify requirements that could be imposed by these two agencies. Potential waters of the United States [pursuant to Section 404 Clean Water Act] are believed to occur on the project site. It may be prudent to obtain a preliminary wetlands map from a qualified consultant. If waters of the United States are confirmed on the project site, the Corps and the Regional Water Quality Control Board (RWQCB) would have regulatory authority over those mapped areas [pursuant to Section 404 and 401 of the Clean Water Act respectively] and permits would be required from each of these resource agencies prior to grading the project site. SJCOG-2

This Project is subject to the SJMSCP. Per requirements of the SJMSCP, this project must seek coverage due to required Army Corp permitting, and is subject to a case-by-case review. This can be a 90 day process and it is recommended that the project applicant contact SJMSCP staff as early as possible.

After this project is approved by the Habitat Technical Advisory Committee and the SJCOG Inc. Board, the following process must occur to participate in the SJMSCP: SJCOG-3

- Schedule a SJMSCP Biologist to perform a pre-construction survey ***prior to any ground disturbance***
- Sign and Return Incidental Take Minimization Measures to SJMSCP staff (given to project applicant after pre-construction survey is completed)
- Pay appropriate fee to the City of Stockton based on SJMSCP findings
- Receive your Certificate of Payment and release the required permit

If you have any questions, please call (209) 468-3913.

SJCOG, inc. SJMSCP (April 14, 2008)

Response to Comments

SJCOG-1: The project applicant will participate in the SJMSCP and pay required fees prior to the issuance of any building permit for the project.

SJCOG-2: Comment noted. The applicant is aware that permitting from the U.S. Army Corps of Engineers and the Regional Water Quality Control Board may be required.

SJCOG-3: Comment noted.

Jenny Liaw - Tidewater Crossing Comments

From: "Mark Hopkins" <mhopkins@sjgov.org>
To: "Jenny Liaw" <Jenny.Liaw@ci.stockton.ca.us>
Date: 4/21/2008 9:16 AM
Subject: Tidewater Crossing Comments
Attachments: Tidewater Crossing Comment DEIR.doc

THOMAS R. FLINN
DIRECTOR

P. O. BOX 1810 - 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000 FAX (209) 468-2999
www.co.san-joaquin.ca.us

Public Works
San Joaquin County
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THOMAS M. GAU
DEPUTY DIRECTOR

MANUEL SOLORIO
DEPUTY DIRECTOR

STEVEN WINKLER
DEPUTY DIRECTOR

BENTON ANGOVE
BUSINESS ADMINISTRATOR

HARD COPY TO FOLLOW VIA REGULAR MAIL

April 21, 2008

Ms. Jenny Liaw, Senior Planner
City of Stockton
Community Development Department
345 North El Dorado Street
Stockton, California 95202

SUBJECT: Draft Environmental Impact Report (DEIR) for Tidewater Crossing and Tidewater Crossing Master Development Plan

The San Joaquin County Department of Public Works has reviewed the above-referenced document and has the following concerns:

Transportation Planning Comments:

1. As stated in the County's comments to the NOP, if any project related improvements will be located within the unincorporated County, the City shall enter into a cooperative agreement with the County specifying the maintenance of such improvements within the unincorporated County shall be the sole responsibility of the City of Stockton. In addition to this original comment, please note that an encroachment permit will also be required for any work within unincorporated County areas. SJPW-1

2. Any fair share fees collected for mitigations in unincorporated County areas shall be forwarded to SJPW-2

San Joaquin County.

3. For easy reference, a map should accompany table 3.1.A, City of Stockton Planned and Approved Development Projects, showing the general boundaries of projects in the vicinity. SJPW-3

4. The Circulation Diagram (Figure 3.3.2) shows the external access from the project area to major roads (e.g. S. Airport Way, French Camp Road, and SR-99) but doesn't include its connection to I-5 and El Dorado Avenue, which are also major roadways that will be affected by the project. The circulation diagram should present all access and exit points to major roadways aside from its proposed ones to have a better analysis of its impacts. SJPW-4

5. Proposed Industrial Access and use of R.A. Bridgeford Street should include analysis of the future interchange at State Route 99 as shown on several maps in the DEIR. This project will directly contribute to the need, and should therefore be responsible for its fair share cost of the interchange. In addition, use of the SR 99 west frontage road to access Arch Road should not be listed as the primary alternative if an easement cannot be obtained for the National Guard Property. The interchange and this project's fair share should be the primary alternative. If a connection to Airport Way is desired for this area, alternatives that do not involve the National Guard Property should be examined and included in the DEIR, especially in light of the letter (located in Appendix A) from Mark Ouimet, California Army National Guard, which clearly states the Guard's opposition to the project's impact to their facility. SJPW-5

6. The traffic study in the appendices includes the intersections of Mathews Road with the North Bound and South Bound I-5 ramps, and recommends the installation of coordinated signals for both locations. This study should also include an analysis of the impact signals would have on the intersection of Mathews Road and Manthey Road. SJPW-6

7. In the description of SR 99 on page 4-333, the DEIR states that SR 99 has frontage roads north of French Camp Road. Please clarify that there are no frontage roads extending north from French Camp Road; the frontage roads begin with hook ramp connections one mile north of French Camp Road. SJPW-7

8. No local road segments were studied for operational impacts. The following local segments should be studied and added to the DEIR: SJPW-8

   - French Camp Road between the eastern project boundary and SR 99
   - French Camp Road between the western project boundary and Ash Street
   - Ash Street/Mathews Road between I-5 and French Camp Road
   - Airport Way between Roth Road and French Camp Road
   - Roth Road between I-5 and Airport Way

9. Traffic studies on intersections made by the consultant should have included Ash St. / S. Harlan Rd. intersection. In addition, the intersection of Union Road and French Camp Road should be included in the study for future deficiencies and potential mitigation. SJPW-9

10. The list of study intersections on Page 4-207 has the following errors to be addressed: SJPW-10

    - Intersection 20 only involves Mathews Road; remove Ash Street
    - Intersections 21 & 22 should list French Camp Road as S. French Camp Road (the change is at El Dorado Street)
    - The west leg of intersection 29 is Airport Way Frontage Road

11. Figures 4.7-3A and 4.7-3B contain the following errors to be addressed: SJPW-11

    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed

- Intersection 6 incorrectly labels the north leg as El Dorado Street; McKinley Avenue extends north from this location to intersection 3
- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersection 27 shows the SR 99 SB ramp as having a separate right turn lane; there is only one striped lane existing, not two
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- Intersection 29, label the west leg as Airport Way Frontage Road
- Intersection 35 should be shown as signalized

SJPW-11 cont.

12. Figures 4.7-4A and 4.7-4B contain the following errors to be addressed:
    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed
    - Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
    - Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
    - Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
    - Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-12

13. Figures 4.7-8A and 4.7-8B contain the following errors to be addressed:
    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed
    - Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
    - Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
    - Intersection 27 is missing the south leg of the intersection
    - Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
    - Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-13

14. Figures 4.7-9A and 4.7-9B contain the following errors to be addressed:
    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed
    - Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
    - Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
    - Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
    - Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-14

15. Figures 4.7-10A and 4.7-10B contain the following errors to be addressed:

SJPW-15

- Intersection 3, McKinley Avenue and Clayton Avenue are reversed
- Intersection 6 incorrectly labels the north leg as El Dorado Street; McKinley Avenue extends north from this location to intersection 3
- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-15 cont.

16. Figure 4.7-11 shows Mathews Rd and FC Bypass reversed | SJPW-16

17. Figures 4.7-12A and 4.7-12B contain the following errors to be addressed:
    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed
    - Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
    - Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
    - Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
    - Intersection 29 is missing

    SJPW-17

18. Figures 4.7-13A and 4.7-13B contain the following errors to be addressed:
    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed
    - Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
    - Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
    - Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
    - Intersection 29, label the west leg as Airport Way Frontage Road

    SJPW-18

19. Figures 4.7-15A and 4.7-15B contain the following errors to be addressed:
    - Intersection 3, McKinley Avenue and Clayton Avenue are reversed
    - Intersection 6 incorrectly labels the north leg as El Dorado Street; McKinley Avenue extends north from this location to intersection 3
    - Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
    - Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
    - Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
    - Intersection 29, label the west leg as Airport Way Frontage Road
    - Intersection 35 should be shown as signalized

    SJPW-19

20. Figures 4.7-16A and 4.7-16B contain the following errors to be addressed:

- Intersection 3, McKinley Avenue and Clayton Avenue are reversed
- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-20

21. Figures 4.7-17A and 4.7-17B contain the following errors to be addressed:

- Intersection 3, McKinley Avenue and Clayton Avenue are reversed
- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- On intersection 29, label the west leg as Airport Way Frontage Road

SJPW-21

22. Figures 4.7-19A and 4.7-19B contain the following errors to be addressed:

- Intersection 6 incorrectly labels the north leg as El Dorado Street; McKinley Avenue extends north from this location to intersection 3
- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-22

23. Figures 4.7-20A and 4.7-20B contain the following errors to be addressed:

- Intersection 3, McKinley Avenue and Clayton Avenue are reversed
- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-23

24. Figures 4.7-21A and 4.7-21B contain the following errors to be addressed:

- Intersection 3, McKinley Avenue and Clayton Avenue are reversed
- Intersection 6 incorrectly labels the north leg as El Dorado Street; McKinley Avenue extends north from this location to intersection 3

SJPW-24

- Intersection 17, only the west leg is Performance Drive; the east leg is C.E. Dixon
- Intersection 20 incorrectly labels the west leg as Ash Street; Ash Street does not begin until east of Harlan
- Intersections 27 and 28 need the south legs labeled; South 99 Frontage Road West and South 99 Frontage Road East, respectively
- Intersection 29, label the west leg as Airport Way Frontage Road

SJPW-24 cont.

25. The discussion of the railroad crossing beginning on page 4-219 does not actually address any potential issues that will arise from the various at-grade crossings. Any location with heavy train traffic should be studied to assess the impact to the local roadway system, including the possible need for grade separations on busy roads (French Camp Road and Roth Road, especially) SJPW-25

26. The DEIR refers to the needed signalization of Roth Road and Airport Way. Please revise to note that this intersection has been signalized for several years. The counts and conclusions for this location need to be redone, and impacts 4.7.17 and 4.7.38 that call for signalization as mitigation need to be reexamined. SJPW-26

27. Figure 4.7-30L: Intersection 35, Airport Way and Roth Road is currently signalized – revise both EPAP and EPAP + Project (if necessary) accordingly SJPW-27

28. The description of the railroad crossing at Airport Way south of Stimson Street states that the crossing is no longer in use, but the future grade separation of this location is sited on pages 4-252 and 4-268 as the reason intersection 29 has no traffic studies performed for future conditions. As this location is within the unincorporated County, not the City, this location should be studied without assuming a grade separation will be in place, as the County has no plans for a grade separation at this location. If desired, show alternate studies both with and without the grade separation, similar to how the French Camp bypass scenarios were handled. SJPW-28

29. Include 4 hour and 8 hour warrants in addition to peak hour warrants on Table 4.7.5. Also include school crossing warrant studies and recommendations for intersection 24, French Camp Road at McKinley Avenue and intersection 25, French Camp Road at Ash Street. SJPW-29

30. Table 4.7.17 contains the following issues:

    - The configuration for I-5 is listed as "ten lanes between E. French Camp Road and Mathews Road." This section does not adequately cover the boundary of the project study area (Charter Way on the north & Roth Road on the south)
    - The entry for French Camp Road states that the 2035 planned lane configuration is eight lanes, when the existing configuration within unincorporated County areas is two lanes. The transitions and their impacts on traffic between two radically different configurations should be studied and discussed. The impacts to the town of French Camp without the Bypass should also be noted and discussed.
    - The configuration for SR 99 is listed as "eight lanes between Mariposa Road and Arch Road." This section does not adequately cover the boundary of the project study area (French Camp Road on the south)

    SJPW-30

31. Tables 4.7.4, 4.7.5, 4.7.10, 4.7.11, 4.7.14 & 4.7.18 have the following errors:

    - Intersection 20 only involves Mathews Road; remove Ash Street
    - Intersections 21 & 22 should list French Camp Road as S. French Camp Road (the change is at El Dorado Street)
    - The west leg of intersection 29 is Airport Way Frontage Road (Tables 4.7.4, 4.7.5, 4.7.10 & 4.7.11 only)

    SJPW-31

32. Impacts 4.7.15 and 4.7.16 refer to the intersections of Roth Road with the I-5 ramps as being located SJPW-32

in San Joaquin County – this is incorrect, as they are within the Lathrop City Limits.

33. As described on page 4-290, Stimson Street is a direct connection for northbound Airport Way traffic to access the industrial areas. Assuming an agreement can be reached to allow access through the National Guard property, signing alone will not eliminate traffic from using this as a cut through route. The trip distributions should be modified accordingly to take this into account. SJPW-33

34. Figure 4.7-30A: All intersection 3 diagrams show the McKinley Avenue and Clayton Avenue labels reversed SJPW-34

35. Figure 4.7-30B: All intersection 6 diagrams incorrectly label the north leg as El Dorado Street; McKinley Avenue extends north from this location to intersection 3 SJPW-35

36. Figure 4.7-30G: All intersection 20 diagrams incorrectly label the west leg as Ash Street; Ash Street does not begin until east of Harlan SJPW-36

37. The DEIR calls for signalization of Local Street E at French Camp Road in impact 4.7.39, where Impacts 4.7.18 and 4.7.50 clearly state that a signal is unfeasible due to the proximity of the railroad at-grade crossing. Additionally, there are references throughout the traffic portion that recommend this intersection be limited to right-in/right-out, but both future scenarios (2025 & 2035 Lane Configurations without mitigation) show a left out. Please address all discrepancies with this location. SJPW-37

38. Figure 4.7-30I: All intersections 27 diagrams need the south leg labeled as South 99 Frontage Road West SJPW-38

39. Figure 4.7-30J: SJPW-39
    - All intersections 28 diagrams need the south leg labeled as South 99 Frontage Road East
    - All intersections 29 diagrams, label the west leg as Airport Way Frontage Road

40. The future expansion of the Stockton Metropolitan Airport may have a significant impact to adjacent major developments as well as road networks. Please note how this project takes into account the Airport's Master Plan and conforms to it. SJPW-40

41. French Camp Rd. passes through a residential and school area west of the project. It is important to note the safety of school children crossing in this area with regards to the expected volumes of traffic that will pass through the French Camp Rd. /Ash St. and French Camp Rd. / S. McKinley Ave. intersections. This should be examined similar to the LOS at these locations, any findings added to the Impacts (4.7.9 and 4.7.10), and any proposed mitigations (such as the proposed signalizations) modified to address impacts. SJPW-41

42. The SR 99 programmed widening and interchange improvements (SR120 to Arch Road, including the new interchange at French Camp Rd. /SR-99) and the proposed interchange next to the project need to be taken into consideration in the traffic study. SJPW-42

43. French Camp Rd. and S. Airport Way are shown as Class III bike routes in the current unincorporated San Joaquin County Master Bike Plan. The DEIR needs to address connectivity between these routes and the proposed Class II bike lanes within the project area boundaries. SJPW-43

44. S. Airport Way is identified as a San Joaquin Rapid Transit Route and Transit Hub in the draft 2035 Stockton General Plan. Potential turnouts and shelters along S. Airport Way should reflect the connectivity of the project area with the route to conform to the proposed General Plan. SJPW-44

45. The DEIR traffic analysis needs to include other approved projects in the area. SJPW-45

46. In the table listing traffic mitigations, it would be helpful if it mentioned where the map of numbered intersections could be found in the Tidewater Crossing Master Development Plan, especially since some refer to proposed roads not labeled on regular maps. SJPW-46

Flood Management Comments:

47. Right-of-Ways along French Camp Slough, South Little Johns Creek and Lone Tree Creek shall be required as deemed necessary for maintenance and construction at the time of subdivision. Newly SJPW-47

acquired Right-of-Way ownership shall be conveyed prior to any final map approval for this project. All Right-of-Way shall be granted in fee to the San Joaquin County Flood Control and Water Conservation District. The Right-of-Way property lines, new and existing, shall be designated as "Restricted" or "Nonaccess" property on the final recorded maps. SJPW-47 cont.

48. The United States Army Corps of Engineers requirements for levee maintenance shall have minimum requirements for French Camp Slough, South Little Johns Creek and Lone Tree Creek Rights-of-Ways. Higher standards may be required as a part of a State Reclamation Board permit. SJPW-48

49. No vegetation shall be planted, bicycle/ pedestrian paths built, or any other alteration shall be allowed on the Right-of-Ways without a permit to do so from the State Reclamation Board on project channels or a permit from the San Joaquin County, Flood Management on non-project channels. SJPW-49

50. Fencing: Any instances of a rear or side yard butting up to a Right-of-Way described in comment 47, a Masonry wall, 8 feet tall from finished grade, shall be erected along the property line with no legal or implied access to the Right-of-Way. SJPW-50

51. Bridges: All bridges shall have vehicle access roads across each end, at street elevation, for vehicle access, in line with the levee maintenance road along the channel. This access will cross all median. Any curb along the line of access shall not exceed 1½ inches in height. Minimum width for these access points is twenty (20) feet. SJPW-51

52. Vehicle access under the bridges built over French Camp Slough will have a minimum of fourteen (14') feet wide by fourteen (14') feet high vehicle clearance and a maintenance road paved a minimum of 14 feet wide with two (2') foot wide shoulders of 3/4" aggregate base on both banks, immediately adjacent to the abutments on the banks. SJPW-52

53. Bridge bottom members (soffits) shall have a minimum of three (3) feet of clearance above the design flood elevation. SJPW-53

54. Gates: San Joaquin County specification Pipe Gates shall be installed at right angles to the access roads a minimum of 50 feet from the most outwardly point of the bridge structure. SJPW-54

55. Access Roads and Maintenance Roads shall be paved a minimum of fourteen 14 feet wide with two (2') foot wide shoulders of ¾" aggregate base. SJPW-55

56. Schedule 80 Pipe Fence shall be joined by welding to the gates described in 50 & 54 and run parallel along the Access Roads and join into fencing or railing running along the adjacent street or bridge. SJPW-56

- The minimum pipe diameter shall be 3"
- The pipe post shall be set on a maximum of 6'-0" centers.
- The pipe posts shall be concrete filled.
- The top of the single pipe rail shall be set at 27 ¾" + or - ¾" above finished grade.
- The rail shall be connected to the post and end to end by welding. (Full fillet weld)
- The pipe posts shall be fitted to the rail by a saddle cut into the post.

57. Bicycle / Pedestrian Path Access points shall be at existing and proposed road intersections with the existing Levee Maintenance Roads located on the current or newly acquired Rights-of Ways described in (15). No ramps shall be constructed along the side of any levee to the top of levee for bicycle or pedestrian access. SJPW-57

58. Bicycle / Pedestrian Access Paths shall be paved a minimum of fourteen 14 feet wide with two (2') foot wide shoulders of ¾" aggregate base. SJPW-58

59. Bicycle / Pedestrian Access Paths shall have San Joaquin County specification Path Gates installed at right angles to the access roads a minimum of 50 feet from the most outwardly point of the bridge structure. SJPW-59

60. State Reclamation Board Permit(s) are required for any work done in the Rights of Ways described SJPW-60

in (A), on the levee, or in the channels of French Camp Slough, Lone Tree Creek or South Little Johns Creek.

61. San Joaquin County Watercourse Encroachment Permit(s) are required for any work done on the banks or in the channel of Weber Slough. SJPW-61

62. Rip Rap shall be placed under any new or modified bridge over French Camp Slough at a minimum of 50 feet upstream and downstream of the bridge, except for the maintenance road. The Rip Rap shall be engineered to prove no diminished capacity of French Camp Slough and placed in a State or County approved manner. SJPW-62

63. A minimum of four (4) feet of levee free board is required 100 feet upstream and downstream of structure per FEMA requirements. SJPW-63

64. Portions of the project site are located in FEMA 100-year flood zones, as shown on the effective FIRM panels 0602990445B, 0602990465B, April 2, 2002, and 060299605A, December 16, 2005. SJPW-64

Traffic Engineering Comments:

65. Pg 3-79, Stimson Street is a private roadway owned by the National Guard but maintained by the County Airport. SJPW-65

66. Intersections #24, 26, and 35 should be built to accommodate Surface Transportation Assistance Act trucks since these are primary truck routes between commercial & industrial facilities in the area. SJPW-66

67. Fig. 4.7-3B, Table 4.7-4, intersection #35 is an existing signalized control. SJPW-67

68. Table 4.7-5, typo. SJPW-68

69. Table 4.7-8 shows trip distribution percentages from the commercial and industrial components. Are these coincidental to truck percentages also? If not, what percentages of trucks are representative in these numbers? SJPW-69

70. Harlan Rd and Ash Street should be analyzed. Harlan Rd primarily serves industrial facilities that operate trucks. Some trucks filter through Ash Street heading towards the freeway and vice-versa when coming in towards Harlan Rd. SJPW-70

71. For Figures 4.7-5, 6, & 7, trip distribution percentages are shown for EPAP, future 2025/2035 for S. Airport Way but not for Roth Rd. It would make sense to show percentages along Roth Rd since the ramps are being analyzed at I-5. There is also an inter-modal facility along Roth Rd operated by UPRR that will likely interact with the commercial/industrial facilities of Tidewater Airport Way. Roth Road should be expanded to accommodate STAA trucks. SJPW-71

72. What factor was used to convert truck trips to passenger vehicle? Was the analysis of LOS accounted for this conversion, i.e., adjusted volume counts for trucks into cars prior to software analysis input? SJPW-72

73. Pg 4-358, Future 2025/2035 are shown as having the same trip distribution but stated, "...additional roadway connections proposed for 2035 provide alternative access routes to the site and affect the travel routes that project trips are expected to take." This leads one to believe that there are two variations to the 2035 trip distribution – one which is the same with 2025 and the other reflective of the French Camp Road bypass. The distribution with the other roadway connections should show a different trip percentage because trips along Airport Way south of French Camp Rd will be affected. With the bypass, trips will increase along the I-5 / Mathews Rd. interchange which will in turn affect Airport Way accessing through Roth Rd – in particular commercial/industrial truck traffic. SJPW-73

74. Harlan Rd and Ash Street along with the adjacent UPRR crossing should have been analyzed. SJPW-74

Thank you for the opportunity to be heard. Should you have questions or need additional information regarding the above comments, please contact me at (209) 468-3085.

Sincerely,

Mark Hopkins
Environmental Coordinator

c: James B. Giottonini, City of Stockton Director of Public Works
Michael C. Selling, Senior Civil Engineer
Pete Martin, Senior Civil Engineer
Tom Okamoto, Senior Civil Engineer
John Corey, Engineer III

San Joaquin County Public Works (April 21, 2008)

Response to Comments

SJPW-1: Comment noted. The applicant has requested the City of Stockton seek annexation of the project area to receive City services. As such, the project-related improvements will be subject to City requirements, including maintenance. Where improvements are to remain within County jurisdiction, such agreements/permits will be followed accordingly.

SJPW-2: Comment noted.

SJPW-3: A map of the City of Stockton's planned and approved development projects can be viewed at http://www.stocktongov.com/CD/pages/documents/ResidentialDevelopmentSummaryMap_006.pdf. The list of approved and planned projects in Table 3.1.A includes several developments not shown on the map referenced above.

SJPW-4: The purpose of the Circulation Diagram (Figure 3.3.2) is to show all primary connections to roadways directly abutting and/or bisecting the Plan area. Interstate 5, State Route 99 and El Dorado Street are shown on the Circulation Diagram; however, these roadways are not generally associated with the project area.

SJPW-5: The interchange is identified as mitigation in the DEIR. However, since this improvement is not fully funded and timing of its construction is uncertain, it cannot be relied upon to provide access in the near-term which would likely require further environmental analysis and review.

SJPW-6: The Mathews Road/Manthey Road intersection is located approximately 200 feet west of the Mathews Road/I-5 southbound ramp intersection. Its operations in conjunction with the two Mathews Road/I-5 ramp intersections are addressed in this response.

Prior to implementation of mitigation at the Mathews Road/I-5 interchange ramp terminal intersections, vehicle queues from the eastbound left-turn movement at the Mathews Road/I-5 northbound ramp intersection would queue back through the southbound ramp intersection to the Mathews Road/Manthey Road intersection.

With signalization of the Mathews Road/I-5 northbound and southbound ramp intersections in the Existing Plus Approved Projects (EPAP) Plus Project condition, the eastbound through movement queue would potentially spillback to the Mathews Road/Manthey Road intersection during the PM peak hour, although the queue spillback would not be any greater than projected in the EPAP scenario. Queue spillback is not anticipated during the AM peak hour.

In 2025, the queuing condition would be similar to the EPAP condition. By 2035, Mathews Road is planned to be upgraded to an eight-lane facility and Manthey Road is planned to be upgraded to a four-lane facility, which would require modifications to the Mathews Road/Manthey Road intersection and the I-5/Mathews Road interchange. The ultimate configuration of the Mathews Road/Manthey Road/I-5 interchange area would be determined as part of the Caltrans process for upgrades to the Mathews Road interchange.

SJPW-7: The EIR text will be modified: "There are frontage roads on both sides of SR-99 that begin approximately 1 mile north of French Camp Road."

SJPW-8: The DEIR studied intersections on these roadway segments and identified significant impacts at those intersections. Intersections represent locations where roadway capacity is most constrained and are used as an indicator of arterial and collector roadway impacts. As such, it is standard practice to evaluate intersections, but not necessarily roadway segments on these types of roadways.

Fehr & Peers conducted a roadway segment analysis, based on daily volumes, in response to this comment. Daily traffic forecasts for the roadway segments identified by the County were developed based on the peak hour volumes at the adjacent intersections. Daily roadway segment operations were evaluated using daily roadway segment capacities from the City of Stockton General Plan. The analysis results are summarized below for the Existing, Existing Plus Approved Projects, Cumulative 2025 and Cumulative 2035 scenarios.

As shown below, all roadway segments currently operate at an acceptable service level on a daily basis.The addition of traffic from approved projects would results in LOS F conditions on French Camp Road, west of the project boundary.The addition of project traffic would worsen the operation of this segment of French Camp Road and result in deficient operations on three additional roadway segments.The EIR identified significant impacts at the intersections at the roadway segment endpoints. Therefore, the impacts identified above are not new project impacts.

Roadway Segment	Facility Type	Existing Lanes/ Mitigated Lanes	Existing		Existing plus Approved Projects		Existing plus Approved Projects plus Project		Existing plus Approved Projects plus Project - Mitigated	
			Daily Volume[1]	LOS	Daily Volume[1]	LOS	Daily Volume[1]	LOS	Daily Volume[1]	LOS
French Camp Road, Eastern Project Boundary to SR-99	Arterial	2/4	7,700	A	14,600	D	**18,900**	**F**	18,900	A
French Camp Road, Western Project Boundary to Ash Street	Arterial	2/4	9,500	C	**17,800**	**F**	**27,200**	**F**	27,200	C
Ash Street/Mathews Road, I-5 to French Camp Road	Arterial	2/2[3]	5,100	A	11,100	C	**17,500**	**F**	17,500	D

Roadway Segment	Facility Type	Existing Lanes/ Mitigated Lanes	Existing		Existing plus Approved Projects		Existing plus Approved Projects plus Project		Existing plus Approved Projects plus Project - Mitigated	
			Daily Volume[1]	LOS	Daily Volume[1]	LOS	Daily Volume[1]	LOS	Daily Volume[1]	LOS
Airport Way, Roth Road to French Camp Road	Arterial	2/4	6,900	A	11,800	D	**17,900**	**F**	17,900	A
Roth Road, I-5 to Airport Way	Arterial	2	4,000	A	9,400	C	12,600	D	n/a	n/a

Notes:
1. Daily volume calculated from PM peak hour link volume. PM peak hour link volume is approximately 10 percent of the daily volume
2. Bold indicated deficient operations.
3. This roadway is build to the older roadway standards.Upgrading the roadway to the current standards would result in LOS D conditions.

Source: Fehr & Peers, 2008.

Measures required to mitigate the near-term intersection impacts include the addition of travel lanes on French Camp Road and Airport Way and improvements to Ash Street to upgrade the roadway to current street standards. These improvements would add capacity to the intersections resulting in acceptable peak hour intersection operations. The lanes added as part of the intersection improvements generally extend beyond the intersection and would partially mitigate the roadway segment impacts. Additionally, further improvements to the deficient roadway segments (French Camp Road, Airport Way, and Roth Road) are included in the City's updated fee program, to which the project application would contribute.

In the 2025 Scenario, the addition of project traffic would worsen already deficient operations on three of the roadway segments and result in deficient operations on one additional roadway segment. Impacts were identified at the adjacent intersections in the DEIR and the impacts identified below are not new impacts. Planned widening of French Camp Road, Airport Way and Roth Road are included in the City's updated fee program and payment of the applicable fees provide the project's fair share contribution to these improvements.

Roadway Segment	Facility Type	Existing Lanes/ Mitigated Lanes	2025 without Project		2025 plus Project		2025 plus Project - Mitigated	
			Daily Volume[1]	LOS	Daily Volume[1]	LOS	Daily Volume[1]	LOS
French Camp Road, Eastern Project Boundary to SR-99	Arterial	2/4	**16,800**	**E**	**21,100**	**F**	21,100	A
French Camp Road, Western Project Boundary to Ash Street	Arterial	2/4	**16,500**	**E**	**23,700**	**F**	23,700	B
Ash Street/Mathews Road, I-5 to French Camp Road	Arterial	2	8,100	A	12,400	D	N/A	N/A

Roadway Segment	Facility Type	Existing Lanes/ Mitigated Lanes	2025 without Project		2025 plus Project		2025 plus Project - Mitigated	
			Daily Volume[1]	LOS	Daily Volume[1]	LOS	Daily Volume[1]	LOS
Airport Way, Roth Road to French Camp Road	Arterial	2/4	**17,600**	**F**	**26,800**	**F**	26,800	C
Roth Road, I-5 to Airport Way	Arterial	2/4	14,000	D	**18,200**	**F**	18,200	A

Notes:
1. Daily volume calculated from PM peak hour link volume. PM peak hour link volume is approximately 10 percent of the daily volume
2. Bold indicated deficient operations.

Source: Fehr & Peers, 2008.

In the 2035 Scenario, the roadway segments would operate at acceptable service levels with the planned roadway configurations and the addition of project traffic. No additional improvements would be required with General Plan Buildout of the area.

Roadway Segment	Facility Type	Planned Lanes	2035 without Project		2035 plus Project	
			Daily Volume[1]	LOS	Daily Volume[1]	LOS
French Camp Road, Eastern Project Boundary to SR-99	Arterial	6	33,900	B	37,500	C
French Camp Road, Western Project Boundary to Ash Street	Arterial	6	31,100	A	37,400	C
Ash Street/Mathews Road, I-5 to French Camp Road	Arterial	4	20,400	A	25,900	A
Airport Way, Roth Road to French Camp Road	Arterial	4	20,300	A	30,000	C
Roth Road, I-5 to Airport Way	Arterial	4	16,100	A	20,700	A

Notes:
1. Daily volume calculated from PM peak hour link volume. PM peak hour link volume is approximately 10 percent of the daily volume
2. Bold indicated deficient operations.

Source: Fehr & Peers, 2008.

SJPW-9: – Supplemental analysis of the Ash Street/S. Harlan Road and Union Road/French Camp Road intersections was conducted. Traffic count data from the adjacent intersections and historical daily traffic counts provided by San Joaquin County Public Works staff were used to develop peak hour traffic estimates on Harlan Street and Union Road. Based on these volumes, the Ash Street/S. Harlan Road and Union Road/French Camp Road intersections currently operate at acceptable levels of service during both peak hours, as shown in the table below. Intersection operations were confirmed

during a field visit. It should be noted that the Ash Street/S. Harlan Road intersection is located adjacent to a railroad crossing which creates roadway grade change and sight distance issues for vehicles attempting to turn to/from S. Harlan Road. El Dorado Street runs parallel to S. Harlan Road in the study area, with several roadways connecting the two facilities both north and south of Mathews Road/Ash Street, providing alternative routes for vehicles with an ultimate destination on Harlan Road.

Intersection	Control	Peak Hour	Existing		EPAP Without Project		EPAP Plus Project	
			Delay	LOS	Delay	LOS	Delay	LOS
40. French Camp Road/Union Road	Signal	AM	13	B	18	B	21	C
		PM	18	B	19	C	23	C
41. Ash Street/Harlan Road	SSSC	AM	2 (11)	A (B)	2 (18)	A (C)	2 (33)	A(D)
		PM	2 (11)	A (B)	2 (18)	A (C)	3 **(41)**	A **(E)**

With the addition of traffic from approved projects (EPAP) the two intersections would continue to operate at acceptable service levels. With the addition of project traffic, the French Camp Road/Union Road intersection would continue to operate at an acceptable service level. The side-street movement at the Ash Street/Harlan Road intersection would degrade to an unacceptable Level of Service E. However, peak hour signal warrants would not be satisfied and this impact is considered less-than-significant.

In the Cumulative 2025 scenario, the two intersections would continue to operate acceptably with the existing lane configurations with the addition of project traffic, as shown in the table below.

In the Cumulative General Plan Buildout (2035) scenario, it was assumed that French Camp Road would be widened to provide three travel lanes in each direction. With this planned widening, the French Camp Road/Union Road intersection would operate acceptably with General Plan Buildout. It was assumed that Ash Street would be widened to provide two travel lanes per direction and that Harlan Road would be restricted to right-in/right-out operation due to the proximity of the intersection to an at grade railroad crossing. With this configuration, the intersection would operate acceptably overall, as well as from the side-street. Construction of the French Camp by-pass would eliminate the need to widen Ash Street from Mathews Road to French Camp Road to accommodate future traffic.

Intersection	Control	Peak Hour	Future (Year 2025) Without Project		Future (Year 2025) With Project		Future (Year 2035) Without Project		Future (Year 2035) With Project	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
40. French Camp Road/Union Road	Signal	AM	22	C	29	C	14	B	14	B
		PM	19	B	25	C	16	B	16	B
41. Ash Street/Harlan Road	SSSC	AM	2 (14)	A (B)	2 (18)	A (C)	2 (20)	A (C)	3 (25)	A (C)
		PM	3 (16)	A (C)	3 (25)	A (C)	3 (22)	A (C)	4 (33)	A (D)

Based on the additional analysis of the French Camp Road/Union Road and Ash Street/Harlan Road intersections, the project impact to these locations would be less than significant and no project specific mitigation is required. However, the project applicant will be required to pay the applicable traffic impact fees that fund planned regional roadway improvements.

SJPW-10: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, the list on page 4-207 was modified in response to the comment.

SJPW-11: This comment is primarily editorial in nature and does not reflect the overall conclusions of the report. However, the figures were modified to reflect the suggested changes. The lane configuration for intersection 27 (French Camp Road/SR-99 Southbound ramps) was shown to have a left-through shared lane and a right-turn only lane. Although not striped, the intersection approach is wide enough to operate as shown on Figure 4.7-3b and therefore no changes were made for that intersection. The comment does correctly note that the Roth Road/Airport Road should have been identified as a signalized intersection. Response to comment SJPW-26 provides the analysis results for scenarios where the intersection was assumed to be unsignalized.

SJPW-12: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-4A and 4.7-4B were modified in response to this comment.

SJPW-13: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-8A and 4.7-8B were modified.

SJPW-14: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-9A and 4.7-9B were modified.

SJPW-15: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-10A and 4.7-10B were modified.

SJPW-16: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figure 4.7.11 was modified.

SJPW-17: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-12A and 4.7-12B were modified. Traffic volumes for intersection 29 (Airport Way/Stimson Street/Airport Way Frontage Road) were also added to the figure.

SJPW-18: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-13A and 4.7-13B were modified.

SJPW-19: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-15A and 4.7-15B were modified. The comment does correctly note that the Roth Road/Airport Road should have been identified as a signalized intersection. Response to

comment SJPW-26 provides the analysis results for scenarios where the intersection was assumed to be unsignalized.

SJPW-20: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-16A and 4.7-16B were modified.

SJPW-21: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-17A and 4.7-17B were modified.

SJPW-22: This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-19A and 4.7-19B were modified.

SJPW-23 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-20A and 4.7-20B were modified.

SJPW-24 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figures 4.7-21A and 4.7-21B were modified.

SJPW-25 – The discussion that begins on page 4-216 discusses the existing conditions at the numerous at-grade crossings in the area. Impact and Mitigation Measure 4.7.19 identify the need to construct grade-separated railroad crossings in the study area on S. Airport Way, south of Stimson Street and E. French Camp Road, east of Priest Road.

SJPW-26 – The comment does note that the intersection of Roth Road/Airport Way has been signalized for several years. Additional analysis of the Roth Road/Airport Way intersection with signalization intersection was performed, as shown below.

Intersection	Peak Hour	Existing		EPAP		EPAP Plus Project		2025 Without Project		2025 With Project	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
35. Roth Road/ S. Airport Way	AM	14	B	16	A	25	C	30	C	***61***	***E***
	PM	14	B	20	B	31	C	**81**	**F**	***132***	***F***

Based on the additional analysis, the project impact identified in the EPAP condition would be eliminated and Mitigation Measure 4.7.17 would no longer be required. The significant impact identified for the 2025 condition would still occur, and implementation of Mitigation Measure 4.7-38 would continue to mitigate the impact.

SJPW-27 – Figure 4.7-30L was updated to reflect intersection 35 as signalized. Please see response to comment SJPW-26 for the intersection analysis results.

SJPW-28 – Although the railroad track is currently in limited use, it has not been abandoned. With the planned widening of Airport Way to 6 lanes by the City of Stockton, a grade separation would be constructed by the City of Stockton. Analysis with the grade-separation presents a worst-case scenario for intersection operations through the corridor as it consolidates traffic at the C.E. Dixon/Performance Drive/Airport Way intersection.

SJPW-29 – The peak hour volume and delay warrants were evaluated for the unsignalized study intersections. Two unsignalized study intersections currently satisfy the peak hour volume or delay signal warrant. In the near-term condition, an additional 14 unsignalized study intersections (all but 3 of the existing unsignalized study intersections) would satisfy the peak hour volume or delay signal warrant. The addition of project traffic would contribute to the need to signalize these intersections. The addition of project traffic would result in one additional study intersection satisfying the warrant criteria. Evaluating the 4-hour and 8-hour warrant or school crossing warrant would not result in any additional intersections satisfying warrants and satisfying one warrant is sufficient for consideration of signalization.

SJPW-30 – Table 4.7.17 will be modified to read:

Location	Lane Configuration
I-5	Ten lanes between Charter Way and Roth Road
SR-99	Eight lanes between Mariposa Road and SR 120

The planned widening of French Camp Road from the existing 2 lanes to an ultimate 8 lanes would occur in a gradual manner over an approximate 30 year period, to accommodate the gradual traffic growth. It can be assumed that any roadway widening to add traffic lanes would be designed in accordance with engineering standards and provide for appropriate lane transitions. Further, it is expected that subsequent project level environmental review would be necessary for any off-site roadway widening improvements that may occur, particularly through the town of French Camp.

SJPW-31 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Tables 4.7.4, 4.7.5, 4.7.10, 4.7.11, 4.7.14, and 4.7.18 were modified in response to this comment.

SJPW-32 – This reference will be edited to read City of Lathrop. This change does not affect the overall conclusions of the report.

SJPW-33 – Project traffic was assigned to the Stimson Street to reflect use of this roadway. As discussed on Page 4-290, the intersection of Stimson Street/R.A Bridgeford Drive would be designed with physical features, such as a median barrier island, to discourage the use of Stimson Street. Additionally, other design considerations can be added to the roadway to encourage use of the C.E. Dixon/Airport Way intersection.

SJPW-34 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figure 4.7.30A was modified.

SJPW-35 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figure 4.7.30B was modified.

SJPW-36 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figure 4.7.30G was modified.

SJPW-37 – Mitigation Measure 4.7.39 calls for the implementation of Measure 4.7.18. The impact analysis assumed that this intersection would provide full access; however, significant impacts were identified under that access scheme. The mitigation measure is to restrict access at this location under all scenarios to right-in/right-out as signalization is not feasible.

SJPW-38 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figure 4.7.30I was modified.

SJPW-39 – This comment is editorial in nature and does not reflect the overall conclusions of the report. However, Figure 4.7.30J was modified.

SJPW-40 – Future growth of the Airport was included in the City's Travel Demand model. The proposed project is consistent with the existing airport layout and future expansion plans. Additionally, the proposed project has been found by the San Joaquin County Airport Land Use Commission to be consistent with the Stockton Metropolitan Airport Land Use Plan.

SJPW-41 – The proposed project would increase traffic on E. French Camp Road, potentially increasing conflicts between vehicles and pedestrians. However, it is important to note that the French Camp Road/Ash Street and French Camp/McKinley intersections are projected to operate at a deficient LOS F prior to the addition of project traffic due to traffic volume increases from approved projects in the area. With implementation of Mitigation Measures 4.7.9 and 4.7.10, which call for signalization of the intersections and roadway widening to provide turn-pockets, a protected pedestrian crossing would be provided at both intersections, and although the pedestrian crossing distance would increase,

sufficient crossing time would be provided to allow pedestrians to cross the street. The project would provide controlled pedestrians crossings and therefore not impact pedestrian access.

SJPW-42 – The planned mainline improvements were included in the 2025 and 2035 conditions analysis. The French Camp Road/SR-99 improvements were included in the 2035 analysis.

SJPW-43 – As roadway improvement plans are being prepared for the roadways within the study area, any transitions between Class II and Class III facilities on will be designed according to standard engineering practices, with the appropriate signing and striping.

SJPW-44 – The DEIR identifies Airport Way as a SJTRD Rapid Transit Route. The project applicant will coordinate with SJRTD to design appropriate transit amenities within the site to conform with the General Plan.

SJPW-45 – The Existing Plus Approved Projects (EPAP) traffic analysis scenario contained in the DEIR accounts for traffic from approved projects as well as projects that can be constructed without any future entitlements from the City of Stockton. This analysis was conducted using the City's EPAP travel demand model.

SJPW-46 – This comment is editorial in nature. No response is required.

SJPW-47 through 64: Comments have been duly noted. These comments will be considered and implemented according to current policies, standards, and specifications at the time of design engineering plan check, permit applications, and FEMA CLOMR submittals.

SJPW-65: Comment noted.

SJPW-66 – Any future improvements required at Intersection 24 (French Camp Road/McKinley Avenue), 26 (French Camp Road/Airport Way) and 35 (Roth Road/Airport Way) would need to take into consideration the truck route and possible STAA designation for these facilities and design improvements accordingly.

SJPW-67 – The applicable figures, table and analysis have been updated to reflect this existing condition. Please see response to comment SJPW-26.

SJPW-68 – The comment does not specify the typographical error. As the comment is editorial in nature, this comment does not affect the overall results of the analysis.

SJPW-69 – The numbers in Table 4.7-8 shows trip distribution percentages for the project land uses. Separate trip distribution percentages were developed for the residential, commercial and industrial portions of the project and account for all traffic to each land use type, including passenger vehicles and trucks. Truck trips were accounted for in the intersection analysis using heavy vehicle factors. Generally, 13 percent of traffic in the AM peak hour is heavy vehicles and 8 percent of traffic in the PM peak hour are heavy vehicles. This is similar to the mixture of project traffic, consisting of industrial, commercial and residential.

SJPW-70 – Please see response to comment SJPW-9.

SJPW-71 – Traffic that is destined for I-5 south of the study area was routed on Roth Road. Approximately 10 percent of project traffic was assigned using Roth Road to access the freeway. These vehicles could potentially stop at the inter-modal facility as part of a planned trip to the site.

SJPW-72 – Recent trip generation surveys conducted by Fehr & Peers for industrial land uses in Stockton indicates that approximately 25 percent of AM peak hour traffic and 22 percent of PM peak hour traffic generated by light industrial/warehouse uses are heavy vehicles. Applying these factors to the industrial trip generation estimates shown in the DEIR results in a total of 13 percent of AM peak hour and 9 percent of PM peak hour traffic generated by the site classified as heavy vehicles. Heavy vehicle factors, as specified in the 2000 Highway Capacity Manual, not passenger car equivalents, were used in the level of service calculations to account for truck effects on intersection operations. A heavy vehicle factor of 13 percent was generally used in the AM peak hour and a 9 percent heavy vehicle factor was generally used in the PM peak hour intersection operations analysis. Therefore, the potential level of truck trip generation from the site was adequately accounted for in the intersection analysis.

SJPW-73 – The regional trip distribution of project traffic in 2025 and 2035 was developed using the City of Stockton travel demand model based on the 1990 General Plan and the General Plan Update. The resulting trip distribution percentages to the regional roadway network were very similar using both models. However, as additional roadway connections would be provided in 2035, the project trip assignment was different between the 2025 and 2035 scenarios, as shown on Figures 4.7-9, 4.7-10 and 4.7-11.

SJPW-74: Please see response to SJPW-9.

Mike Niblock MN
Gregg Meissner —
Jenny Liaw JL
Eric Elias EE

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CITY OF STOCKTON
COMMUNITY DEVELOPMENT DEPT.

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

July 8, 2008

Jenny Liaw, Senior Planner
City of Stockton
c/o Community Development Department
Planning Division
345 North El Dorado Street
Stockton, California 95202

Dear Ms. Liaw:

This is in response to your request for comments on the Public Review of the Recirculated Draft Environmental Impact Report for Revised Air Quality and Global Climate Change Sections for the Tidewater Crossing Master Development Plan (EIR2-05), City of Stockton.

Please review the current effective Flood Insurance Rate Maps (FIRMs) for the City of Stockton, (Community Number 060302), Map revised April 2, 2002. Please note that the City of Stockton, San Joaquin County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map. FEMA-1

- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways. FEMA-2

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm. FEMA-3

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The City of Stockton floodplain manager can be reached by calling James B. Giottonini, Director, Department of Public Works, at (209) 937-8411. The San Joaquin County floodplain manager can be reached by calling Thomas R. Flinn, Director, Department of Public Works, at (209) 468-3000.

If you have any questions or concerns, please do not hesitate to call Jonathon Bartlett of the Mitigation staff at (510) 627-7246.

Sincerely,

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:
James B. Giottonini, Director, Department of Public Works, City of Stockton
Thomas R. Flinn, Director, Department of Public Works, San Joaquin County
Ray Lee, State of California, Department of Water Resources, Central District
Jonathon Bartlett, Floodplanner, CFM, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

FEMA (April 10, 2008)

Response to Comments

FEMA-1: The flood control project proposed for the Tidewater Crossing project consists of a series of levees, floodwalls and drainage basin with pump station that would remove the project area from the floodplain; therefore the building pads will not be required to be elevated above the Based Flood Elevation. The proposed project will not increase the base flood elevations. A hydrologic and hydraulic study has been performed for the project to demonstrate the effects of the project on the base flood elevations. A Conditional Letter of map Revision (CLOMR) application with the necessary technical data will be submitted to FEMA for project approval prior to the start of any construction. The City of Stockton's floodplain manager has been consulted and the City's approval of the project will be obtained prior to final approval of the CLOMR application by FEMA.

FEMA-2: See response to FEMA-1.

FEMA-3: See response to FEMA-1.

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
3330 Ad Art Road
Stockton, CA 95208
(209) 943-8666
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

July 21, 2008

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STATE CLEARING HOUSE

File No.: 265.10215.9921.Tidewater III

State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95841

Thank you for the opportunity to review the "Notice of Completion" Recirculated Tidewater Crossing Draft/Environmental Impact Report (EIR). The Tidewater Crossing Project will encompass 909 acres of land bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp road to the south. (SCH# 2005122101). The project will involve the construction of 2,663 residential units, areas of commercial and industrial, an elementary school and recreational areas.

Although the EIR indicates several plans to provide a higher degree of safety and mitigate the expected increased traffic volumes throughout the project and on adjacent roadways within the city, it stops short of addressing the negative impact and increased traffic volumes on local freeways. With the new construction of on and off ramps, there will be a significant impact on State Route 99 vehicular traffic. Therefore, I recommend the City of Stockton work closely with the Department of Transportation (Caltrans) as well as the CHP in developing long range and short-term plans that are beneficial to all the citizens utilizing the highway system. CHP-1

The impacts on local traffic created by this project will be significant and felt by local commuters. This project will require the CHP to redirect staffing to effectively manage traffic absent an increase in resources. The impacts of this project should be further addressed in the project's EIR. Should you have any questions, please feel free to call my staff at (209) 943-8666. CHP-2

Sincerely,

J. E. DIAL, Captain
Commander
Stockton Area

cc: California Highway Patrol, Special Projects Section

Department of California Highway Patrol (April 7, 2008)

Response to Comments

CHP-1: Currently, efforts are being pursued by the City of Stockton and Caltrans to provide capacity enhancing improvements to Highway 99 and associated roadways in anticipation of proposed development projects such as Tidewater Crossing.

CHP-2: At the local level, the City of Stockton Police Department will be responsible for traffic enforcement, thus relieving this burden from the CHP. Impact fees will provide funding to offset local police protection services, and to assist in funding relevant roadway improvements.

San Joaquin County
Environmental Health Department
600 East Main Street
Stockton, California 95202-3029

Website: www.sjgov.org/ehd
Phone: (209) 468-3420
Fax: (209) 464-0138

DIRECTOR
Donna Heran, REHS

ASSISTANT DIRECTOR
Laurie Cotulla, REHS

PROGRAM COORDINATORS
Carl Borgman, REHS
Mike Huggins, REHS, RDI
Margaret Lagorio, REHS
Robert McClellon, REHS
Jeff Carruesco, REHS, RDI
Kasey Foley, REHS

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CITY OF STOCKTON
COMMUNITY DEVELOPMENT DEPT.

August 19, 2008

Jenny Liaw, Senior Planner
City of Stockton
Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202

Subject: Public Review of the Recirculated Draft Environmental Impact Report for Revised Air Quality and Global Climate Change Sections for the Tidewater Crossing Master Development Plan (EIR2-05)

The San Joaquin County Environmental Health Department has no additional comments on the above project pertaining to the revised air quality and global climate change sections. (EHD) request the following comments be added to the above project for consideration:

SECTION 6(e), 16 (b)
The existing homes are being served by on site sewage disposal systems. The Environmental Health Department recommends that as part of developing these properties, the septic system(s) be destroyed under permit and inspection by the Environmental Health Department. EHD-1

SECTION 8(b), 13a (5), 16 b, d
The existing homes and agricultural parcels are being served by individual wells for domestic and irrigation purposes. The Environmental Health Department recommends that a part of developing these properties, the well(s) be destroyed under permit and inspection by the Environmental Health Department. EHD-2

If you have any questions please contact Rodney Estrada, Lead Senior Registered Environmental Health Specialist, at (209) 468-0331.

for

Mike Huggins, REHS, RDI
Program Coordinator

MH:tl

San Joaquin County Environmental Health Department (April 3, 2008)

Response to Comments

EHD-1: Destruction of existing sewage disposal systems under permit and inspection by the Environmental Health Department are standard provisions and the applicant will adhere to these requests as indicated.

EHD-2: Destruction of existing wells under permit and inspection by the Environmental Health Department are standard provisions and the applicant will adhere to these requests as indicated.

SAN JOAQUIN COUNCIL OF GOVERNMENTS

555 E. Weber Avenue • Stockton, California 95202

209.468.3913 • 209.468.1084 (fax)
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January 18, 2006

Mr. Mark Martin
City of Stockton
Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202

Dear Mr Martin:

The proposed Tidewater development (EIR2-05) is within the Stockton Airport Area of Influence. The San Joaquin County Airport Land Use Plan (ALUP) requires that any residential development in this area file a Deed of Avigation and Hazard Easement.

It is also within the Horizontal Surface. The ALUP states of this zone:

"The standards regarding non-reflective material, transmissions, and visual distractions to pilots which apply to other zones also apply to these zones." Please refer to the ALUP for these standards. COG-1

"Proposed schools that are to be located within 2 miles radius of an airport must undergo a review by Caltrans Division of Aeronautics, and the Department of Education." The Department of Education has final approval. COG-2

The proposed development does not fall within the noise contours of the existing ALUP. These contours were developed in 1991, and may not reflect the current operations at the Stockton Airport. Interior noise within residences must be mitigated to 45 decibels. COG-3

Please contact Kim Kloeb at (209) 468-3913 with any questions.

Sincerely,

ANDREW T. CHESLEY
Executive Director

cc: Rick Tutt, Chairman, San Joaquin County Airport Advisory Committee
Barry Rodinella, Stockton Airport

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AND
THE COUNTY OF
SAN JOAQUIN

March 21, 2008

Ms. Jenny Liaw
City of Stockton
Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202

Dear Ms. Liaw

RE: EIR 2-05 Tidewater Crossing Master Development Project

SJCOG, serving as the Airport Land Use Commission for San Joaquin County, provided comments on the subject development in January of 2006 to Mr. Mark Martin of your department. A copy of that letter is attached. Our review shows that no update to the comments is needed.

Please contact me at (209) 468-3913 with any questions.

Sincerely,

Kim Kloeb
Senior Regional Planner

cc: Steve Hicks
Tom Truszkowski

San Joaquin Council of Governments (March 21, 2008)

Response to Comments:

COG-1: Table 4.6.K of the EIR illustrates the project's consistency with the restrictions of the Horizontal and Conical Subareas. In addition, Mitigation Measure LU-2a sets restrictions on building materials, transmissions, and visual distractions to pilots.

COG-2: The Caltrans Division of Aeronautics, as well as the Department of Education have reviewed the proposed school sites, and have given preliminary approval.

COG-3: Noise analysis used in preparation of the EIR employed the most current noise contours available. Mitigation measures related to residences are presented in Section 4.5 and include attenuation to 45 dBA noise levels for interior residential structures.

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MOTHER LODE CHAPTER
1414 K STREET, SUITE 500
SACRAMENTO, CA 95814
TEL. (916) 557-1100 x 108
Fax: (916) 557-9669
coordinator@sierraclub-sac.org
www.motherlode.sierraclub.org

Mike Niblock
City of Stockton
Community Development Dept.
345 N. El Dorado Street
Stockton, CA 95202

21 April 2008

RE: Tidewater Crossing Draft Environmental Impact Report

Mr. Niblock:

Please send the Final EIR, and all legal notices regarding this project to my home address, 1421 W. Willow St., Stockton 95203. **Do NOT send copies to the Sierra Club address in Sacramento at the top of this letterhead.**

We have reviewed the Draft EIR for the above project and have these comments:

We incorporate by reference our previous comment letters of December 17, 2007, August 27, 2007, April 23, 2007, and 13 July 2007 on the Crystal Bay, Sanctuary, Mariposa Lakes, and the Empire Ranch DEIRs. Some of our comments on the Crystal Bay, Sanctuary, Mariposa Lakes, and Empire projects and DEIRs apply also to this project (such as comments on agricultural impacts, water supply, wastewater, traffic, air quality/greenhouse gas, affordable housing,and biology), and the comments should be addressed by the DEIR consultants and City. In addition, we incorporate by reference all of the comments on these previous documents submitted by the Morada Area Association. We have read the comments by the Morada Association and agree with them. SC-1

In summary, we believe the Tidewater Crossing DEIR analysis is seriously deficient in the areas of agricultural impacts, biological resources, air quality, traffic, and cumulative impacts. The analysis in these and other topical areas is insufficient to comply with the California Environmental Quality Act (CEQA) and must be supplemented, as recommended below, to meet the minimum requirements of State law. The DEIR should be revised and supplemented SC-2

accordingly and re-circulated for another minimum 45-day public review period. Better still, the project and its accompanying DEIR should be held until after the legal proceedings against the approved Stockton General Plan 2035 have been resolved. SC-2 cont.

DEIR Conclusions are Inconsistent with Other Recent EIRs

Some of the conclusions of level of significance for identified impacts in this DEIR are different and inconsistent with conclusions found in other recent DEIRs, including the Empire, the Mariposa Lakes, and the 2035 General Plan DEIRs. While different consultants may reach somewhat different conclusions, some of the discrepancies are notable and should have been resolved through City staff review and correction prior to publication of the various DEIRs. For example, the other DEIRs found more impacts, such as on services/utilities, to be significant and unmitigable, since future funding of necessary improvements could not be guaranteed (often because another agency was responsible). These other DEIR conclusions are inconsistent with this DEIR's conclusions that all facility impacts can be mitigated through payment of fees or other mechanisms. SC-3

Inconsistency with Policies in the proposed 2035 GP

The analysis in the Land Use section of the DEIR fails to identify potentially significant impacts related to the inconsistency of the project's design and impacts with the several policies in the approved 2035 GP. The project cannot be found to be consistent with several policies and the DEIR should recommend mitigation to be consistent.

For example, the project is not consistent with Policy PFS-2.7, since the DEIR fails to justify whether a permanent water supply has been guaranteed. The project is not consistent with the Housing Element policies calling for affordable housing, since the project includes no dedicated affordable housing, but will consist of 100% market rate housing units. The project is not consistent with Conservation Goal 1, Policy 1, or Policy NCR-4.4, which calls for the retention of viable agricultural soils and establishment of an Ag Conservation Program, since the project would convert approximately 900 acres of viable ag lands and impacts on Williamson Act contracts has not been discussed or mitigated. The DEIR also does not specify that the project must comply with the City's recently adopted ag mitigation program (requiring purchase of a 1:1 easement for projects over 40 acres, not payment of an in-lieu fee). SC-4

Similarly, the DEIR fails to note that the project is inconsistent with draft GP policies related to traffic levels of service at various intersections. SC-5

DEIR Requires Inadequate Mitigation for Loss of Ag Lands

The DEIR fails to offer feasible and available mitigation for the loss of agricultural lands. In addition, the DEIR fails to disclose if any portion of the project would require the cancellation of Williamson Act contracts. SC-6

Most (95%) of the project is located on prime soils and soils deemed to be "of Statewide Importance."

The DEIR fails to require adequate mitigation for the loss of agricultural lands in compliance with City's recently adopted Ag Mitigation Program. The DEIR analysis must discuss the program in detail and note that projects more than 40 acres in size are required to purchase easements equal to the loss of land (900 acres). The project is not eligible to pay an in-lieu fee as the DEIR erroneously states. The mitigation must state that the first easement would be required at the time of the first final subdivision map. SC-6 cont.

Air Quality

The treatment of air quality and greenhouse gas issues in this DEIR is not all consistent with the analysis and mitigation included in the previous DEIRs issued by the City in the last year or so. The City staff should do a better job of attempting to reconcile differing consultant analysis and recommended mitigation, as these wildly differing environmental analyses simply add confusion for the lay reader and indicate that the City is not serious about the CEQA process. SC-7

For example, previous DEIRs include mitigation measures that contain a laundry list of SJVAPCD and other smart design mitigation strategies, while this DEIR fails to include a mandatory list. For air quality impacts, this DEIR simply states erroneously that "Feasible mitigation measure do not exist that would reduce the impacts to a less than significant impact" (Impacts AIR-7, 8, and 9). SC-8

The DEIR includes a list of "recommended measures to reduce the project's contribution to an increase in greenhouse gases" (page 4-32) yet the DEIR does not require these as specific mitigation measures. The DEIR states only that "the following recommended measures *should* be implemented...as appropriate and practical..." (page 4-32). SC-9

The DEIR analysis must be re-written to analyze which of these programs have been proposed by the applicant, which are feasible, and which shall be required as mitigation and a condition of project approval.

The project applicant must be required to propose a detailed air quality mitigation plan that commits to implementing specific actions, e.g., use of non-gas vehicles within the project site, establishment of commercial services in the earliest phases of home construction, electric solar panels and electric lawnmowers with every home, etc. If the project proposes some of these, it should be disclosed in the Project Description.

Global Warming and Greenhouse Gases

The Air Quality analysis should include a quantification of how much greenhouse gases (CO2 and others) the project would generate. SC-10

The DEIR states that the project's contribution to global warming would be less than significant if measures in the Land Use, Air Quality, Transportation, and Public Services sections of the DEIR are applied (page 4-33), but the DEIR contains no empirical justification for that conclusion. This statement is even more ridiculous when we read in the Transportation section that the vast majority of the identified traffic impacts (37 of the 53) are determined to be "significant and unavoidable" with no mitigation available! SC-11

The DEIR also fails to adequately take into account the cumulative impacts of global warming on water supply. SC-12

Land Use

The Land Use section notes:

The proposed project would comply with the "Village" designation for the property in the 2035 General Plan "as it combines residential, commercial, and industrial uses. A General Plan Amendment has been requested to designate specific land uses within the project area. Although the designation of "Village" will be changed, the proposed land uses will remain consistent with the 2035 General Plan Update upon City adoption. As a result, the conditions outlined in Significance Criteria LU-d would not occur. However since the 2035 General Plan Update process has not been completed, this finding is pending its adoption." SC-13

The DEIR must describe in more detail why the project would be consistent with the Village designation. Is the project as proposed consisten with the 2035 General Plan policies that call for a specific portion of new "village" development to be devoted to high density housing ("4-6% minimum")?

The DEIR must describe whether the project is consistent with the Housing Element policies calling for affordable housing. If the project includes no dedicated affordable housing, but consists of 100% market rate housing units, how can it be consistent with affordable housing policies?

Biological Resources

The DEIR note that there are three known nest sites for the Swanson's hawk on the project property. The DEIR fails to describe what steps must be taken if and when construction is proposed within distance of the nests. SC-14

Mitigation Measure BR-2b is inadequate as it vaguely refers to another document, without summarizing the requirements, so they can be attached as mitigation measures and conditions of approval for the project

Mitigation Measure BR-2b states only "If an active nest is discovered, the project applicant shall be responsible for implementing the applicable Incidental Take Minimization Measures outlined in the SJMSCP (see Appendix F)." The DEIR must describe how the minimization measures can be implemented during specific project construction and phasing so that all potential impacts to any nesting hawk(s) can be avoided.

Hydrology/Water Supplies

The water supply analysis in the DEIR is perfunctory and does not adequately summarize the much more detailed discussion in the Appendix, in the Water Supply Assessment (WSA). SC-15

The water supply analysis fails to demonstrate that enough water will be available for the project, and fails to provide quantification and justification for a determination that water supply impacts will be "less than significant" (page 4-383).

SC-15 cont.

The DEIR fails to state whether the water for the project is dependent on construction of the infrastructure for the Delta Water Supply Project (DWSP), Phase I. Is it?

Please explain in plain English what the following statements mean in practical terms:

"Once the construction of the Phase 1 DWSP is completed, the urban water retailers will continue to rely upon existing surface water supplies through SEWD and existing groundwater supplies that underlie the COSMA service area. *The reliability of water supply resources for the COSMA will be secure for some time while plans and agreements are secured for optimum use of water supplies for the long term build-out of the City of Stockton General Plan."* (emphasis added)

SC-16

Furthermore, the DEIR must explain whether the WSA complies with technical requirements of SB 221 and State law.

The DEIR states cryptically: "The Water Supply Assessment indicates that there is sufficient supply of water to serve the proposed project. *According to the COSMUD, the determination is valid for 24 months and does not constitute a reservation of supply to serve the project.*" (emphasis added)

SC-17

Does this mean that a future water supply cannot be verified for the project?

The DEIR goes on to state "The COSMUD makes this determination based on the information contained in the WSA and on the following specific facts:

- The existing near-term and long-term reliable supplies of SEWD surface water supplies and indigenous groundwater supplies can deliver a sustainable reliable water supply without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA.
- The existing conjunctive use program of using SEWD surface water and COSMA groundwater supplies shows that sufficient water rights and available groundwater supplies exist for the project.
- The project will be served by water supplies made available through the existing COS conjunctive use program within the COSMA."

SC-18

The DEIR then concludes "Based upon the expected water supply and demand, as outlined in the WSA, the Tidewater Crossing project will not have a significant impact on water supply and the conditions outlined in Significance Criterion WSA-a will not occur."

Does this conclusion mean that the project is consistent with the requirements of SB 221 and applicable state law, and is consistent with Stockton 2035 GP Policy PFS2.8?

Once again, the water supply analysis in this DEIR appears to differ from the analysis and conclusions in previous DEIRs released by the City in the last year. For example, the Sanctuary

SC-19

DEIR states that short term project water needs of that project could be met by Phase I of the Delta Water Supply Project by concludes that a short term water supply for the project is not confirmed (page 3.8-42 of the Sanctuary DEIR).

SC-19 cont.

This Tidewater DEIR must be amended to note that City officials have indicated in the past that Phase I of the DWSP is intended only to supply existing and planned development within the existing 1990 GP (Mark Madison comments at draft GP workshops and statements in the DWSP EIR). The DEIR must also discuss whether use of the DWSP is consistent with these statements and City assertions contained in the submittal to the State Water Board.

The DEIR discussion of the DWSP should be revised to state that the City plan is to use the first phase of the DWSP to supply existing and planned development within the existing 1990 GP and for groundwater recharge, and not for new development allowed in the 2035 GP.

We incorporate by reference the extensive review and critique of the previous DEIR's water supply analysis that has been prepared by Morris Allen and incorporated into the comments submitted by the Morada Area Association. We agree wholeheartedly with Mr. Allen's finding that the previous DEIRs analysis, and is this DEIR's analysis, is deficient because "The consultants in the DEIR largely sidestep the issue of regional groundwater overdraft, and, instead, focus on the narrow issues regarding groundwater availability in the project area. This is a major and very significant discrepancy in the SMDP DEIR."

SC-20

The analysis fails to comply with SB 221 requirements, since the water supply analysis relies on future water supplies that are over-estimated or highly speculative, or both, as noted below.

The DEIR must be augmented to include a thorough discussion of legal requirements and recommend specific mitigation measures to ensure compliance at all phases of the project with the requirements. The City must comply with Government Code Section 66473.7, which does not allow a subdivision to move ahead unless a water supply is proven. The DEIR fails to include any mitigation measure that requires the project to comply with these requirements.

The law requires four items be proven to guarantee a water supply: water rights contracts; a capital program; agency permits in hand to allow the project; and other necessary regulatory approvals. These should be specified in mitigation measures.

SC-21

Government Code Section 66473.7 states:

"(d) When the written verification pursuant to subdivision (b) relies on projected water supplies that are not currently available to the public water system, to provide a sufficient water supply to the subdivision, the written verification as to those projected water supplies shall be based on all of the following elements, to the extent each is applicable:

(1) Written contracts or other proof of valid rights to the identified water supply that identify the terms and conditions under which the water will be available to serve the proposed subdivision.

(2) Copies of a capital outlay program for financing the delivery of a sufficient water supply that has been adopted by the applicable governing body.

(3) Securing of applicable federal, state, and local permits for construction of necessary infrastructure associated with supplying a sufficient water supply.

(4) Any necessary regulatory approvals that are required in order to be able to convey or deliver a sufficient water supply to the subdivision." SC-21 cont.

Regarding the overall water supply analysis, we agree, as Mr. Morris states, that the only firm water sources available to the City's Water Utility at this time to support the increased water demands described in the SMDP DEIR is surface water via Stockton East Water District (Second Amended Agreement) – 20,000 acre feet/yr, allocated to the City of Stockton's Water Utility, San Joaquin County Maintenance Districts, and to Cal-Water on a proportionate basis.

As Mr. Morris notes, "Non-firm supplies being relied upon by the City of Stockton's Water Utility to meet demand from this proposed subdivision and other anticipated developments: SC-22

- Groundwater basin (currently in critical overdraft). In my professional opinion, the existing groundwater basin cannot be considered a firm water supply for the ERSP since it has been found by the Department of Water Resources to be in critical overdraft, and the authorities noted above; however, the consultants who have prepared the ERSP DEIR do not concur with this assessment, and indicate that "the basin is recovering and is stabilized". If this statement is correct, why are all of the water agencies, including San Joaquin County, the City of Stockton and the City of Lodi, working diligently to find ways and means to recharge the basin?
- Surface water supplied from Stockton East from the Stanislaus River under contract from the US Bureau of Reclamation – quantity varies from 0-35,000 acre feet/yr
- Surface water supplied from Stockton East from the Stanislaus River under contract from OID/SSJID – quantity varies from 8-30,000 acre feet/yr."

Mr. Morris concludes "While this combination of sources has been meeting the immediate demands of the COSMA, they can not be considered firm or reliable, nor can they legally be committed to new developments; and the net result of COSMA utilizing increasing amounts of groundwater to meet the needs of an increasing number of customers has been to make a significant contribution to the groundwater overdraft in this subbasin."

As the City's *Water Supply Assessment* indicates, without the water supply available from the proposed Delta Water Supply project, there is insufficient water supply available to support this project, along with all of the other pending development projects which have been approved or anticipated. Further, under Term 91 of the contract with the State Water Resources Control Board, the City will be unable to divert water from the Delta at any many times of the year, due to a restriction that pumping occur only during "balanced conditions" in the Delta. The additional yields noted by the Water Supply Assessment for the Delta Water Supply Project to meet immediate, foreseeable and long-term demands will not be available at the levels indicated in the City's *Water Supply Assessment for the Sanctuary/Shima Tract Master Development Plan* (Appendix L), and cannot be included in the determination of sufficiency for this ERSP. SC-23

We agree with Mr. Morris that the *Water Supply Assessment* (WSA) consistently overstates water production by confusing capacity with production. It should be assumed that the production of a water treatment plant can be no more than 75% efficient. The Assessment should be revised accordingly. The WSA should also not assume future production of Stockton East of 60 million gallons per day, since this would speculatively assume the district could SC-24

acquire rights to new sources of water from the State Water Quality Control Board. There is no evidence that future rights to water will be acquired.

SC-24 cont.

We agree also that it is absurd and factually inaccurate for the DEIR analysis to argue that the project can claim an "agricultural credit" that "acknowledges that the groundwater basin was being used for agriculture prior to urbanization." In the case of a basin in critical overdraft, no "credit" can be assumed by converting from one groundwater use to another. At best, the "critical condition of overdraft" has been slightly reduced by some unquantified level of agricultural pumping. This type of speculation is a very poor substitute for actual documentation of prior water uses on the subject property, and has no place in a Water Supply Assessment.

This Tidewater DEIR totally fails (as does the Sanctuary and General Plan 2035 DEIRs and the other two DEIRs for the Empire Ranch and Mariposa Lakes projects) to address the regional and cumulative impacts of cumulative planned growth on the existing water supply. As Mr. Morris noted in his comments on the Empire Ranch DEIR:

SC-25

"While the City of Stockton and Stockton East are engaged in a number of activities to develop additional water rights for additional water supplies to serve COSMA, there is no assurance whatsoever that any additional water rights will be obtained for either expanding the Delta Water Supply Project as planned, or for expanding the Stockton East Water Treatment Plant as assumed in the City's *Water Supply Assessment.* This means that the additional 136,000 acre feet per year required to support growth contemplated in the City's proposed General Plan Update-2035 and the City's *Water Supply Assessment for the ERSP* must come from groundwater, which is already seriously overdrafted. This will increase the groundwater overdraft in the subbasin to at least 300,000 acre feet per year, which, in my professional judgment, would place the overdraft at the crisis level."

The WSA and DEIR for this sanctuary project must address this assertion from a professional water expert, and former City staff member, that potential impacts to the groundwater basin related to water supply for new growth could be disastrous to the resource.

The Water Supply Assessment in the Sanctuary DEIR fails (as does the General Plan DEIR and other project DEIRs) to acknowledge the fact that other San Joaquin County cities, including Ripon, Lathrop, Manteca, and Lodi all rely heavily on groundwater use, and that significant growth is also occurring in these cities.

All of the EIRs being circulated by the City must include an analysis that looks at the cumulative impacts of current and planned uses of groundwater with those of all other San Joaquin County cities to determine what impact all cities, including Stockton, will have on groundwater availability. There are no estimates in any of Stockton's documentation that attempt to quantify the groundwater demands of the other cities overlying the Eastern San Joaquin Groundwater Basin. This is a serious flaw in the analysis, because it underestimates the City's significant adverse direct and cumulative impacts on regional groundwater supplies.

SC-26

Wastewater

The DEIR fails to discuss the expansion(s) of the City's regional wastewater treatment plant which would be required to serve this and other cumulative projects. The DEIR must be

SC-27

augmented to describe the existing plant and proposed expansions, as well as the schedule and timing for the modifications and whether they would be in place for the Tidewater project phasing. SC-27 cont.

The whole "analysis" of wastewater simplistically looks only at the collection system.

Impact and Mitigation WW-1 fail to justify a conclusion of less than significant impacts. The DEIR argues that "The City's Wastewater Master Plan Update indicates that the project needs can be met with the same technologies currently used at the plant and that additional analysis should be conducted before improvements are constructed. The report provides information on the existing system and recommended improvements for the General Plan buildout. The Tidewater Crossing project is included in the future plans of the General Plan buildout and will be adequately served by the current RWCF. Improvements to the facility will be analyzed and implemented as deemed necessary by the City and OMI to accommodate the General Plan buildout demands. SC-28

The DEIR must summarize the specific improvements that have been planned, and describe how they will be funded, to serve the project.

What would be the potential land use impacts of a pipeline construction to serve the project ? How many homes and businesses would be potentially affected? The DEIR should describe the conceptual route for the parallel pipe, not avoid the issue.

Transportation

The buildout of the project will generate some 46,000 new vehicle trips (excluding internal trips).

The DEIR should be amended to clarify how the identification and mitigation for the impacts was determined, as the text is somewhat confusing. The text notes that impacts were based on future 2025 impacts (based on the 1990 General Plan buildout) as well as year 2035 (based on the 2035 GP). Was the 1990 or 2035 GP buildout used to identify impacts, or were both used? Each impact should be identified as to what buildout was employed. SC-29

Incredibly, the Transportation section states the vast majority of the identified traffic impacts (37 of the 53) are determined to be "significant and unavoidable" with no mitigation available! The DEIR should better discuss how the number of unmitigated impacts could be reduced to a manageable level. SC-30

A continuing major deficiency of this and other previous transportation analyses (and the analyses in the 2035 GP DEIR) involves the use of future lane widenings (to 8 and 10 lanes) on SR 99 and I-5, which are consistent with Caltrans plans, and may never be approved and built. SC-31

The DEIR should be revised to explain if any 10 lane freeway has been constructed in northern California, and how a 10 lane freeway could operate with close interchanges in Stockton. Please explain if any Caltrans plans call for 10 lane freeways in Stockton or elsewhere.

The project and cumulative traffic analysis should be augmented to analyze impacts of project buildout assuming 8 lanes on I-5 and 6 lane son SR 99. SC-31 cont.

Jobs/Housing

The DEIR fails to include adequate a mitigation measure to ensure that jobs and services are created with each phase of the housing. The DEIR should add a measure similar to the Mountain House project plan and EIR, which required monitoring of job creation during housing construction intervals (e.g., every 1,000 or 2,000 homes). If jobs are lagging, then appropriate actions are required, e.g., hiring a full time economic development coordinate or slowing sub map or building permit approvals. SC-32

Cumulative Impacts

The DEIR fails to adequately analyze the cumulative impacts of the project for a number of reasons including an incomplete list of pending projects within the City of Stockton and a failure to quantify cumulative impacts. The discussion of cumulative impacts must include a summary of the expected environmental effects to be produced by those projects, a reasonable analysis of the cumulative impacts, and full consideration of all feasible mitigation measures that could reduce or avoid any significant cumulative effects of a proposed project. SC-33

The cumulative impacts section must be rewritten and recirculated, because the basic assumption upon which the analysis rests is faulty. The DEIR's approach seriously underestimates cumulative impacts since it fails to take into account numerous pending General Plan Amendments for large scale development projects that amount to over 42,000 housing units.

The cumulative impacts analysis relies extensively on the existing 1990 General Plan to draw its conclusions, and fails to discuss and analyze cumulative impacts of the recently approved 2035 GP and the projects in that plan that are already being processed by the City. SC-34

One of the greatest flaws of this DEIR (as well as the other three DEIRs) is that they all fail to even mention that over one half of the growth that is proposed in the 2035 General Plan is already being processed by the City, and that the City has already adopted a Sphere of Influence for growth north of 8 Mile Road. SC-35

The DEIR discussion of baseline conditions fails to even discuss or mention this uncomfortable fact and a layperson reading this document could not even begin to understand how much development proposed north of 8 Mile Road, for example, is already a "done deal." Actions by the City Council to sign development agreements with major developers prior to the November, 2004 election tried to inoculate the developers from the effects of Measure Q, if it were to be passed by voters. In the process of approving a premature SOI and agreements for lands that had not even been included within the existing City General Plan, the City Council pre-ordained the outcome of the GP Update process.

TABLE 1
Large Development Projects In Process by City Council

Project/Location	Acres	Housing Units	Status
Arnaiz/North Stockton Village (part of Village D of draft GP)	771 acres	3,800 housing units	Master Development Plan proposed
Spanos/Thompson lands, north of 8 Mile Road (Villages B, C, and part of D of draft GP)	2,200 acres	7,500 housing units	Specific Plan in process; Development Agreement approved
Grupe Sanctuary project (Village A of draft GP)	2,000-acre Shima Tract	6,000 housing units	Development Agreement approved; EIR in process
Empire Ranch project, south of Morada (Village I of draft GP)	600 acres	2,200 housing units	EIR in process
Verner/Maripsa Lakes project, east of Route 99 between Mariposa Road and Route 4 (Villages J and K of draft GP)	3,650 acres	9,300 housing units	EIR in process
Arnaiz/Tidewater Crossing near French Camp part of Village L of draft GP)	800 acres	4,000 housing units	EIR in process
River Run/Western Pacific project, south of Weston Ranch (Villages N and part of M of draft GP)	1,850 acres	9,250 housing units	EIR in process
TOTAL	11,871 acres	42,050 units	----

Source: City of Stockton, Pending Projects Map

TABLE 2
Portion of 2035 General Plan Growth Already Approved for Processing

	Acres	Housing Units	Population
Development projects in process	11,871 acres	42,050 units	121,150*
Total "village" development in 2035 General Plan (minus Bear Creek West –Village H)	25,100 acres	79,200 units	237,600
Development projects in process as % of GP villages	47.3 %	53.1 %	53.1 %

*Assumes 3.0 persons per household.

The City Council has already given approval for the processing of some 11,900 acres of urban growth, or more than one half of all the new development that is proposed in the draft 2035 General Plan. A total of almost 12,000 acres of growth are in the pipeline, equal to 42,100 housing units. As Table 2 above notes, the approximately 12,000 acres of development that are being processed before the new General Plan was even adopted in December, 2007, compares to a total of about 25,000 acres of farmland that will be paved over if all the planned "villages" in the new General Plan are built (these figures are from the City). Thus, the Council has already set in motion the approval of over 50% of the total "village" growth proposed in the 2035 General Plan, and over half the proposed housing and population growth. SC-35 cont.

All of the above listed projects must be included in a revised environmental document that is circulated to the public. In order for the DEIR to be adequate it must list, analyze, and mitigate to the extent feasible the cumulative impacts from all of these development projects.

Alternatives

The DEIR fails to adequately consider a wide range of alternatives. SC-36

We would like to see a new alternative that (1) significantly reduces the amount of residential and industrial uses so that nearby intersections and freeway ramps can operate within acceptable LOS D levels; and (2) reduces the project so that there is more verifiable water and sewer service.

If you have any questions about these comments, you may contact me at 209/462-4808 or eparfrey@sbcglobal.net.

Again, please send the Final EIR, and all legal notices regarding this project to my home address, 1421 W. Willow St., Stockton 95203. Do NOT send copies to the Sierra Club address in Sacramento at the top of this letterhead.

Sincerely,

Eric Parfrey, Executive Committee
Sierra Club, Mother Lode Chapter

Sierra Club (April 21, 2008)

Response to Comments:

SC-1: The City appreciates the comments that you have previously provided on EIRs prepared for Crystal Bay, Sanctuary, Mariposa Lakes and Empire Ranch projects. You have indicated that some of your comments apply to the project regarding agricultural impacts, water supply, wastewater, traffic, air quality/greenhouse gas, affordable housing and biology. Without more specific direction, the City is unable to provide a specific response to this general comment. Each of those projects has an effect that is unique to their own setting, land plan, etc. that dilute preparing a general response, resulting in a response that may or may not apply to the Tidewater Crossing project. Accordingly, the direction provided in your comment letter that is more specific to Tidewater Crossing, addresses these same environmental topics and will provide the basis for responding to your comments.

The Morada Area Association did not provide any comments on the Tidewater Crossing project. The comments generated by the Morada Area Association on the other projects may or may not specifically apply to the Tidewater Crossing project. It is therefore presumed that your comments made with respect to water supply will also serve to address the Morada Area Association comments to their extent of applicability.

SC-2: The City does not believe that the Draft EIR is deficient with respect to agricultural impacts, biological resources, air quality, traffic and cumulative impacts. Responses are provided below to specific comments generated on those environmental issue areas. In general, the EIR indicates that agricultural impacts from the project will conflict with the policies directed towards preserving agricultural land. While policy conflicts are not in themselves considered significant impacts, the conversion of agricultural lands to non-agricultural/urban purposes is considered a significant impact that cannot be fully mitigated. Even with compliance with the City's Agricultural Mitigation Fee program, the impacts will remain significant and unavoidable. For biological resources, the site was adequately surveyed and impacts to biological resources, special status species and wetlands were appropriately addressed. Compliance with the SJCMSCP will adequately mitigate for most of the project impacts followed by complete mitigation to less than significant levels with specific mitigation measures. For air quality concerns, the EIR acknowledges that the project will have a significant impact on the region's air quality, despite the application of mitigation measures. Traffic impacts are analyzed in accordance with the City's standard methodology, and incorporate City traffic modeling results. The EIR acknowledges that, despite the application of mitigation measures, the project will contribute to the deterioration of levels of service, and cannot be completely mitigated. For cumulative impacts, the traffic forecasts and impact analysis were conducted using cumulative baseline data. Likewise, since both air quality and noise were based on traffic forecasts, the cumulative impacts were considered accordingly. For biological concerns, the project impacts were mitigated in accordance with the SJCMSCP which is based on a regional approach. Hydrology related impacts and design solutions were based on watershed-level engineering analyses. Water supply concerns were analyzed by the City using a regional water supply assessment approach for calculating long-term water availability and reliability.

SC-3: The City does not agree that the conclusions of level of significance identified in the EIR are faulty simply because they are different than conclusions found in other EIRs. The Tidewater Crossing EIR is a stand alone document evaluated for conditions specific to the project and should be perceived as such. With respect to services/utilities impacts, the City found that the impacts were mitigable as the project applicant has made provisions to ensure the utility infrastructure will be constructed, thus eliminating uncertainty.

SC-4: The comment states that the Land Use section of the EIR is inconsistent with the following General Plan policies:

Policy PFS-2.7: The Water Supply Assessment performed for the project by qualified engineering specialists found that a permanent water supply has been guaranteed through a variety of supply/service provisions, including the establishment of the Delta Water Supply Project. Therefore, the project is consistent with this policy.

Housing Element policies calling for affordable housing: Although the project does not include specifically dedicated as affordable, the project does include 264 high density residential units, as well as a wide range of medium and low density residential units at a variety of densities and housing types. The City believes that such a wide range of housing choices will provide affordable options to residents with different social and income characteristics.

Conservation Goal 1, Policy 1, or NCR-4.4: The project will convert approximately 871 acres of agriculture land to urban uses. This impact was found to be significant and unavoidable. However, the comment states that Williamson Act contracts were not mitigated. The project site contains no Williamson Act contracts and therefore mitigation is not required. Further, the comment states that the EIR does not specify that the project must comply with the City's agricultural mitigation program. Yet Mitigation Measure LU-3 states that the applicant shall comply with the City's Agricultural Land Mitigation Program, and therefore, does comply with said program.

Further, General Plan policies do not demand mandatory compliance, but rather act as guidance for compliance. It is rare than any development project can be found consistent with every policy set forth by the City, although the proposed project is consistent with the majority of the City's goals and policies

SC-5: No specific locations are identified in the comment where the General Plan policies as they related to traffic were inconsistent. Impacts to the local and regional roadway system were identified using significance criteria reflecting both the 1990 General Plan as well as the 2035 General Plan, where appropriate. (1990 General Plan policies were applied to the 1990 General Plan Buildout scenario, while General Plan Update policies were applied to that Buildout scenario). Impacts to the roadway network under the EPAP condition were evaluated against the policies in the 1990 General Plan, as that plan is more stringent by setting LOS D as the threshold, than the General Plan Update, which permits LOS E and F at some locations.

SC-6: Please see response to comment SC-4. The EIR acknowledges that the site contains soils of "Statewide Importance".

SC-7: Based on the evolving concerns on global climate changes, the City has re-examined its approach of land development project and greenhouse gas emissions. Accordingly, the City has recirculated a revised Air Quality section, and added a new Global Climate Change section as presented in Appendix A.

SC-8: The new Global Climate Change section includes a substantial list of mitigation measures intended to reduce impacts regarding air quality and greenhouse gas emissions.

SC-9: Please refer to the revised sections in Appendix A.The Global Climate Change section includes a more comprehensive analysis of greenhouse gas emissions, as well as both mandatory and optional mitigation measures.

SC-10: Please refer to response SC-9.

SC-11: The revised Global Climate Change section has found impacts regarding greenhouse gas emissions to be significant and unavoidable. New mitigation measures are also proposed to help offset these impacts.

SC-12: Cumulative climate change impacts have been extensively analyzed in the new Global Climate Change section (Appendix A), and water conservation mitigation measures have been added due to the indirect effects on reducing greenhouse gas emissions.

SC-13: The 2035 General Plan Update is the governing General Plan document in the City of Stockton, and all project must be reviewed for their consistency to that plan. The project concept as outlined in the Master Development Plan has been designed to incorporate the features included in the "Village" designation. In preparing for the public hearing/approval process, the City staff will prepare a staff report that evaluates the consistency of the proposed project with the project site General Plan designations as needed to make General Plan consistency findings. The City's staff report will include the details of Village designation in comparison with the project development concept and General Plan consistency.

The proposed project includes 264 high density residential units, approximately 10% of the total 2,663 residential units proposed in Tidewater Crossing. This exceeds the 4-6% minimum high density housing encouraged by the 2035 General Plan.

The proposed project does not include specifically designated affordable housing. However, the project includes 264 high density residential units, as well as a wide range of medium and low density residential units at a variety of densities and housing types. The City believes that such a wide range of housing choices will provide affordable options to residents.

SC-14: Incidental Take Minimization Measures for Swainson's hawk outlined in the SJMSCP:

The Project Proponent has the option of retaining known or potential Swainson's hawk nest trees (i.e., trees that hawks are known to have nested in within the past three years or trees, such as large oaks, which the hawks prefer for nesting) or removing the nest trees.

If the Project Proponent elects to retain a nest tree, and in order to encourage tree retention, the following Incidental Take Minimization Measure shall be implemented during construction activities:

> If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.

If the Project Proponent elects to remove a nest tree, then nest trees may be removed between September 1 and February 15, when the nests are unoccupied.

SC-15: The commentor states that the water supply analysis in the DEIR does not adequately summarize the WSA. It is the opinion of the City that the DEIR has adequately summarized the Water Supply Assessment analysis and conclusions. Also, since the WSA is an attachment of the DEIR, a complete narrative of the WSA's findings is unnecessary.

The commentor also states that the water supply analysis fails to demonstrate that enough water will be available for the project. Please refer to responses to comments SC-16 through SC-19 regarding water supply for the project.

Lastly, the commentor asks if the proposed project is dependent on the infrastructure for the Delta Water Supply Project (DWSP).As stated in the WSA, and in responses below, the project is not dependent upon the DWSP.

SC-16: The commenter is asking for clarification on the timing of the Phase 1 Delta Water Supply Project (DWSP) and its combined operation with existing SEWD and groundwater supplies. As noted in previous responses, the Tidewater Development WSA is intended to comply with the requirements of SB 610 (not SB 221) and builds on several previous studies (the DWSP Feasibility Report, General Plan Update Water Supply Evaluation (WSE), and the City of Stockton Municipal Utilities Department's (COSMUD's) 2005 Urban Water Management Plan), as well as site-specific analysis of the Tidewater Development and its long-term water supply needs. These studies have been rigorous, and have applied conservative assumptions about water demand, available supplies, and other relevant constraints. The DEIR and Tidewater Development WSA, however, acknowledge the uncertainty arising from its various water supplies (particularly the interim supplies historically provided by Stockton East Water District [SEWD]), and thus consider alternative future water supplies

(namely, the DWSP). Ultimately, the Tidewater Development WSA concludes that implementation of the Phase 1 DWSP is not necessary to ensure that its water supplies will be sufficient to meet the needs of the Tidewater Development, as well as existing and planned future uses within its service area.

However, to address the comment, the Phase 1 DWSP has already received all key regulatory approvals from the City of Stockton and the State Water Resources Control Board and thus is considered to represent a reliable and firm supply despite the fact that infrastructure must be built before water can be treated and delivered to new growth areas. As a stop-gap measure, if the DWSP Phase 1 is not constructed in time to accommodate the first development to occur in the Tidewater Crossings project area, General Plan Policy PFS-1.11-Subdivision Approval will preclude a result by which the City could grant direct development approvals, in that the policy would effectively prohibit future construction of the Tidewater Development without an alternative source of water. The California Supreme Court recently stated that such a phasing strategy, as a kind of mitigation, could serve to supplement an EIR's discussion of the impacts of exploiting the intended water sources. (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 432.) Here, the WSA and EIR summarize with reasonable certainty the added source of water from the Phase 1 DWSP. Indeed, COSMUD has obtained all of the necessary regulatory approvals for construction of the DWSP's intake structure and water treatment plant (WTP), the State Board has issued an appropriative water rights permit, the capital outlay program is in place, and there are few constraints due to the source of that right being wastewater return flows in the Delta. Consequently, it is highly unlikely that any tentative subdivision maps or other site-level approvals will be delayed due to the kind of showing required by General Plan Policy PFS-1.11. And even if delays due to the policy do become necessary, the result will be temporary only, until such time as COSMUD completes its construction of the Phase 1 DWSP.

Stepping back and looking at the existing water supply program, SEWD is the primary wholesaler of treated surface water to the three water retail providers of the City of Stockton Metropolitan Area (COSMA). Groundwater is sparingly used by each of the three water retailers conjunctively to supplement SEWD surface water supplies during periods of high water demand. Upon final completion of the Phase 1 DWSP, SEWD and DWSP supplies will both be utilized in a manner to maximize total surface water deliveries to the COSMA. Groundwater use by the three retailers will continue to serve only as a supplemental water supply. The total groundwater use in any given year will vary based on available surface water supplies. Continuous monitoring of groundwater use and the condition of the underlying aquifer will be reported to validate changes in the aquifer behavior as a result of the region's groundwater extraction practices consistent with the Eastern San Joaquin Groundwater Basin Groundwater Management Plan (GMP) (Northeastern San Joaquin County Groundwater Banking Authority (GBA) further described in the response to Comment SC-22.

To summarize, existing and new growth water demands are sustainable using the conjunctive use program currently in-place. Like any utility, COSMUD's water supply program includes a capital projects list with the on-going Phase 1 DWSP being the first priority, and expansion of the SEWD WTP and feasibility of groundwater recharge programs currently under study by the Stockton Area Water Suppliers (SAWS), represented by the three City of Stockton retailers and SEWD. All SEWD expansions are evaluated by SAWS and paid for through the existing Second Amended Contract Base Monthly Payment. In addition, the water supply program has and will continue to obtain the necessary water rights, and other interim and long-term surface water supply contracts to maximize its use of

surface WTP capacity. In sum, the WSA and EIR preparers have concluded, based on substantial evidence that COSMUD's water supplies will be sufficient to meet the demands of the Tidewater Development and existing and planned future uses in the service area. This conclusion emanates from COSMUD's historical deliveries, conservative assumptions about future supplies, the certainty associated with its DWSP entitlements, the "fail safe" nature of General Plan Policy PFS-1.1.1, and the early success of its conjunctive use program. Lastly, the commenter requests an explanation of how the Tidewater WSA complies with State Law in meeting the technical requirements of SB 221. Under current State Law the technical requirements of SB 221 are not required until tentative map approval. As written, SB 221 prohibits approval of a final subdivision map creating more than 500 new lots unless the public water system serving the project site (or a city or county in the absence of a third-party provider) provides written verification that a sufficient water supply is available or will be available prior to completion of the project.

SC-17: The purpose of completing a WSA is to thoroughly evaluate water supplies for the Tidewater Development and all foreseeable developments. The WSA does not imply a reservation of water or any entitlement to water supplies under the jurisdiction of the water retailer. The referenced sunset clause that is included in every WSA's determination of water supply adequacy is included only to clarify that the determination does not grant the development an entitlement that is permanently attached to the property. (The WSA, in other words, is not the legal equivalent of a "will serve" letter.) It is through compliance with SB 221 and General Plan Policy PFS·1.1.1 at the time of tentative map approval, and compliance with General Plan Policy PFS·2.7 at the time of building permit issuance, that the water retail provider will make a "will·serve" commitment to secure a permanent supply of water for the development increments at issue.

SC-18: See response to Comment SC-16 regarding consistency with applicable State Laws. General Plan Policy PFS 2.8 requires the City of Stockton to obtain a State Water Resources Control Board Delta water right permit prior to including Delta water supplies and the DWSP as a reliable water supply in the approval of new development projects. The City of Stockton has already complied with this policy, as was stated in the Tidewater WSA as follows:

> On April 22, 2003, Stockton's City Council approved the DWSP Feasibility Report and directed the Municipal Utilities Department (COSMUD) staff to complete the necessary environmental studies to comply with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). An environmental impact report ("EIR") was prepared to satisfy CEQA with respect to the DWSP. On November 8, 2005, the Stockton City Council certified the EIR and also authorized the City staff to proceed with the project. The certified document was included as part of the water rights application package submitted to [State Water Resources Control Board] SWRCB, which issued a permit for a Delta diversion for Phase 1 in the amount of 33,600 AF/year on March 8, 2006.

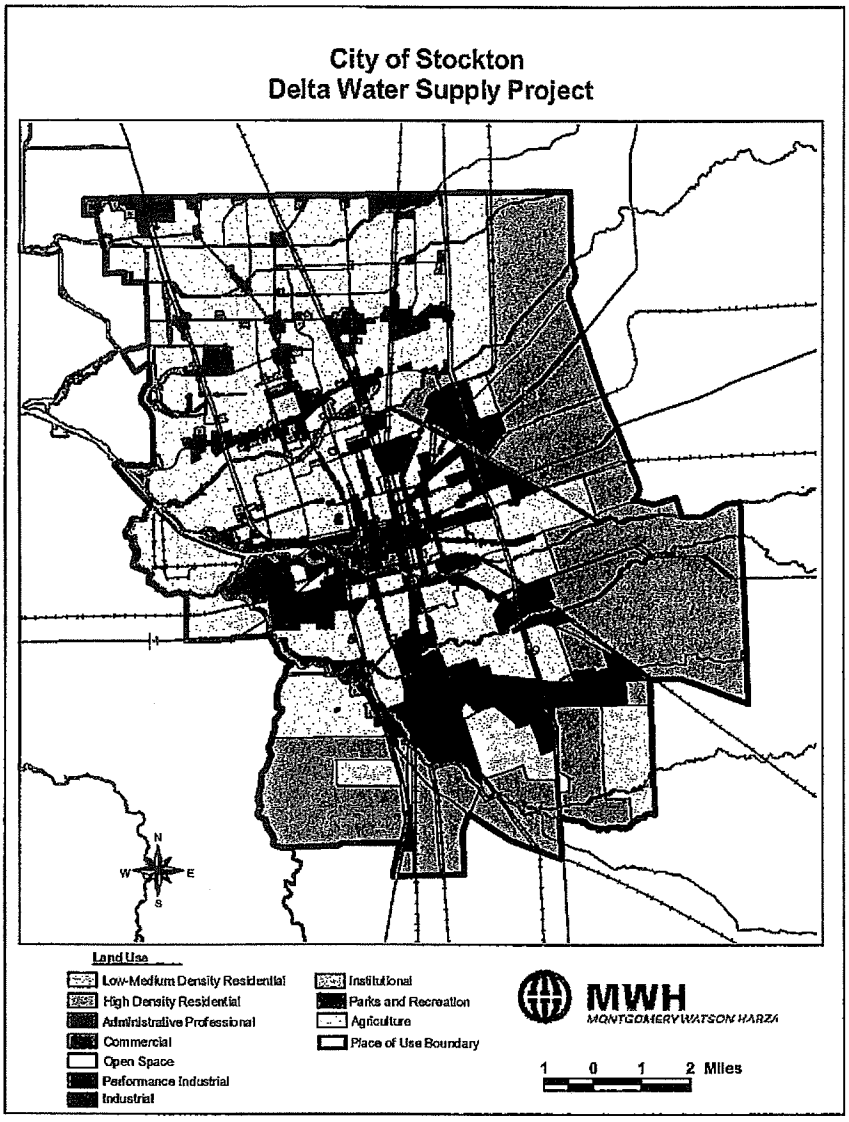
(Tidewater WSA, COSMUD, January 5, 2006 [Amended February 28, 2008])

The SWRCB Water Right Permit is included herein as Appendix C. Further milestones in the regulatory approval process a National Marine Fisheries Service (NMFS) Biological Opinion (BO) dated November 29, 2006, a United States Fish and Wildlife Service (USFWS) BO dated June 27,

2007, and a draft final Department of Fish and Game Streambed Alteration Agreement (SAA) dated June 16, 2008. Pending is a Water Quality Certificate from the Regional Water Quality Control Board (RWQCB) and a 404 Permit from the United State Army Corps of Engineers.

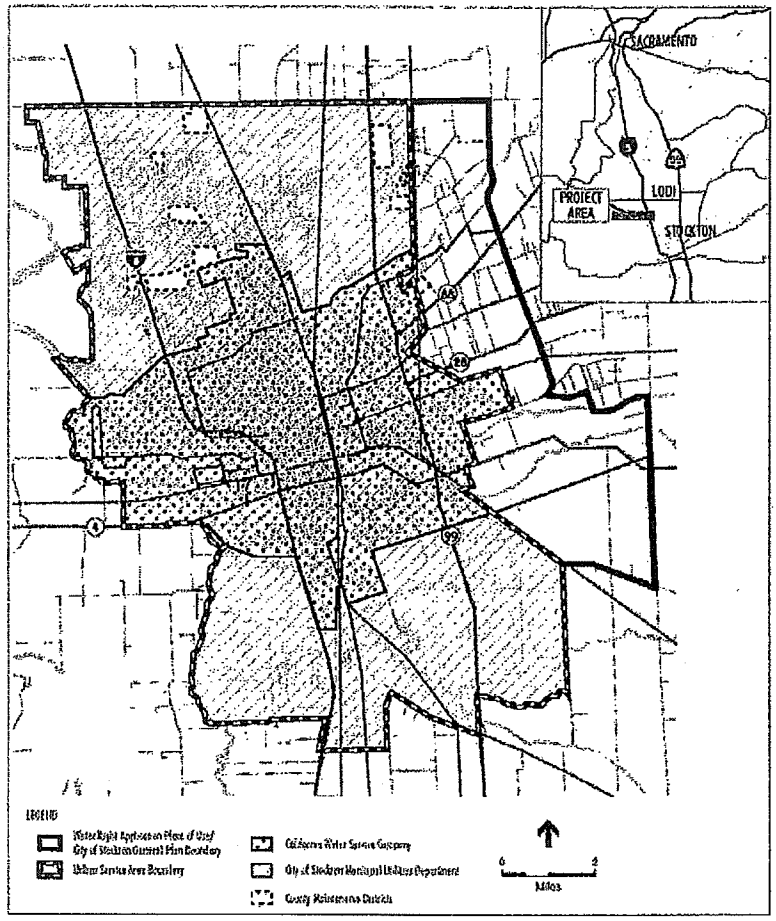
SC-19: The commenter is noting apparent differences between the DWSP project definitions as provided in the DWSP EIR, the project definition as per the State Water Resources Control Board Water Right Permit Application for Section 1485 water, and the project definition in the General Plan Update Water Supply Evaluation (WSE). In truth, the phasing of the DWSP, as defined in the DWSP Feasibility Report, the DWSP EIR, and the General Plan Update WSE, is planned for and described as meeting forecasted growth of the City of Stockton to 2050. The following is taken from the DWSP Final EIR: The DWSP would be incrementally expanded as the need for additional treated water supply develops. The initial phase of the DWSP is needed immediately and is proposed for Implementation in 2009. It is designed to meet the treated water supply needs of full development (build-out) under the City's current 1990 General Plan, anticipated by about the year 2015. Initially, the DWSP would be sized with a water treatment plant (WTP) capacity to treat and deliver up to 30 million gallons per day (mgd) (33,600 acre-feet per year) of water. Ultimately by about 2050, the WTP would be expanded to treat 160 mgd (125,900 acre-feet per year) of water. (Delta Water Supply Project Final EIR, October 2005) The Section 1485 water right permit for diversion and treatment through the DWSP does limit the place of use of only Section 1485 water to the 1990 General Plan Boundary (an area that is greater than the 2015 build-out of the urban designated areas of the 1990 General Plan). To further illustrate how the DWSP project description and the Section 1485 water right permit work together, below are two figures. The first is the 1990 General Plan and its urban and agriculture land use designations. The second figure delineates the Section 1485 water right permit's place of use as the 1990 General Plan Boundary. An Urban Services Boundary is also shown to delineate the extent that utilities can plan ahead for infrastructure improvements without being in conflict with General Plan policies addressing growth inducement issues.

City of Stockton 1990 General Plan Land Use Map



(Source: DWSP Feasibility Report, City of Stockton Planning Department)

Phase 1 DWSP Section 1485 Place of Use



(Source: Draft DWSP EIR, April 2005)

When referencing build-out of a General Plan, studies look at growth to build-out of the urban designated areas of the General Plan. For instance, this does not include development of agricultural designated lands indicated in the 1990 General Plan land use diagram that are within the Urban Services Boundary. Based on population growth projections in the 1990 General Plan, build-out of the urban designated areas was forecasted to occur by 2015. As a result, 2015 development conditions (i.e., water demands) became the goal of the Phase 1 DWSP and was the primary focus in the DWSP EIR and public presentations by COSMUD and City of Stockton staff. Nowhere is it stated that the DWSP will serve only to 2015. In fact, the Phase 1 DWSP was sized based on meeting the Urban Services Boundary of the 1990 General Plan. Based on population projections included in the various DWSP reports, this area carried an assumed build-out of 2029. When asked by City of Stockton Planning staff to evaluate the water supply sufficiency of the 2035 General Plan Update, COSMUD developed a Water Supply Evaluation (WSE) that considered the Phase 1 DWSP in light of obtaining the Section 1485 water right for 33,000 AF/year, and all other surface water supplies through the SEWD WTP (i.e., certain assumptions in surface water availability through SEWD were updated based on documented information received through various sources), and use of groundwater.

While a General Plan is not subject to SB 610, the City of Stockton retailers believed that a WSE completed in a similar manner as a SB 610 WSA was necessary. Any differences between the WSE and published DWSP reports and WSAs were discussed in the WSE. The finding of sufficiency contained within the WSE was that the Phase 1 DWSP, used conjunctively with the other sources of supply, could meet the General Plan's 2035 water demands. Furthermore, it was clearly noted that Phase 2 DWSP and the City's Area-of-Origin water rights are necessary soon after 2035. The commenter also requested a clarification on how Section 1485 water can be used to meet water demands of the 2035 General Plan Update that includes new urban growth areas outside the Section 1485 water right permit's place of use. The ability to serve water to the expanded growth areas of the General Plan Update stems from COSMUD's access to water supplies other than the Section 1485 water, including SEWD's firm surface water rights on the Calaveras and Stanislaus Rivers, interim and long term surface water transfer agreements, and groundwater. As a result, it is not absolutely necessary that the Section 1485 water right place of use be expanded to include the larger growth area of the 2035 General Plan Update. This does not, however, prevent the City from submitting a State Water Resources Control Board petition to change the Section 1485 place of use subject to CEQA. Additionally, this does limit the City from acquiring additional water rights and contracts for treatment at the DWSP WTP that differ from the Section 1485 water right in terms of water volume and place of use.

The Tidewater WSA clearly addresses the question of whether the water retailers of the City of Stockton can serve the anticipated growth of the Updated General Plan by including specific criteria to meet new growth demands as follows:

> Water facility requirements (e.g., size, phasing, and location) will be in accordance with the [General Plan Update] Water Supply Evaluation to 2035 and the DWSP Feasibility Report to 2050. The Feasibility Report is the only adopted document that contemplates growth and water facility requirements beyond 2035. The growth assumptions and facility phasing contained within Feasibility Report are consistent with the WSE to 2035.

(Tidewater WSA, COSMUD, January 5, 2006 [Amended February 28, 2008])

Furthermore, to reinforce the certainty of completing all planned water supply elements, the General Plan Update CEQA analysis and resulting General Plan policies have been adopted to insure that facilities and water supplies are continually analyzed over time as new developments are considered by the approving agencies. General Plan Policy PFS1.1.1 will have the effect of requiring the City to periodically determine whether its prior assumptions about water supply availability remain valid over time. By the approval of these policies and actions, the Phase 1 DWSP has been approved to serve demands in accordance with the General Plan Update to 2035.

SC-20: The commenter appears to be citing comments previously generated by Mr. Allen on other project DEIRs, and not comments specific to the Tidewater DEIR. Records indicate that no comments were received from Mr. Allen for the Tidewater DEIR. Based on the commenter's quoted deficiency in addressing groundwater overdraft, the assumed project being cited is the Sanctuary Master Plan Development located in the northwest Stockton area. The response to Mr. Allen's comments on the Sanctuary Master Development Plan will be addressed in the "Final EIR for the Sanctuary Master Development Plan"- expected to be issued by the City of Stockton Planning Department in June 2008. Since Mr. Allen's comments were developed on behalf of the Morada Area Association, many of the issues are concerning groundwater changes northeast of the COSMA. For this reason, the location of the Tidewater Development should be considered in reviewing the Sanctuary responses. Especially, the Tidewater Development is located in the southern COSMUD service area where groundwater is being managed according to available surface water supplies from the SEWD WTP via the newly constructed South Stockton Aqueduct, a dedicated pipeline for surface water deliveries to COSMUD's south service area. By reducing the north service area's reliance on SEWD supplies through the DWSP, the existing conjunctive use program can continue to serve existing and future water demands in the south service area.

SC-21: The General Plan Update WSE includes a discussion on each of the above requirements based on meeting the equivalent of a SB 610 water supply assessment. As noted in earlier comments, SB 221 compliance is required at tentative or final map approval, as is compliance with General Plan Policy PFS-1.1.1. In summary, based on the equivalent of a SB 610 analysis, COSMUD has the water right and City Council approval for the design and construction of the DWSP. The capital outlay program is outlined in Section 10910(d)(2)(B) of the WSE. Regulatory permits include a NMFS BO dated November 29, 2006, a USFWS BO dated June 27, 2007, and a draft final Department of Fish and Game SM dated June 16, 2008. A Water Quality Certificate from the RWQCB and a 404 Permit from the United State Army Corps of Engineers have been pending based on obtaining the SM. Under SB 610, a water supply can qualify as an "existing supply" even if some additional infrastructure is necessary to deliver the water to new growth areas. (See Wat. Code, § 1091 0(d)(2)(D} (permitting agencies to identify "[a]ny necessary regulatory approvals that are required in order to be able to conveyor deliver the water supply").) It is therefore clear that some limited amount of uncertainty may exist with respect to such a supply while still treating it as an "existing supply" for WSA purposes. Similarly, under the California Supreme Court's Vineyard decision, a CEQA lead agency must assess whether there is a "reasonable likelihood" that an anticipated water supply will be available to meet a project's water demands when they materialize. (40 Cal.4th at pp. 432, 437.) In Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2007) 157 Cal.App.4th 149, 162, the Court of Appeal held that a county lead agency had properly considered an inter-agency water transfer as a reasonably likely supply within the meaning of Vineyard despite the fact that the transfer

was still the subject of pending litigation. Despite some uncertainty created by that litigation, the court nevertheless found that the lead agency's record contained "substantial evidence demonstrating a reasonable likelihood that water from the ... transfer will be available for the project's near- and long-term needs." Clearly, the DWSP is a real project sponsored by the City of Stockton over the past 10 years, and is an "existing supply" for purposes of SB 610 and a "reasonably likely" source for purposes of CEQA. The project has gone through rigorous technical and environmental review resulting in public support to proceed with the construction of the project based on the project achieving the following three primary objectives:

1. To supplement surface water supplies available through SEWD.
2. To protect and restore groundwater resources.
3. To provide adequate water supplies to accommodate planned growth.

SC-22: The commenter requests an acknowledgement that the Eastern San Joaquin Groundwater Basin is one basin, with no hydrogeologic barrier, and despite the results of monitoring wells in urban areas, the entire basin is still in critical overdraft and cannot be relied upon as a firm water supply. The commenter states his opinion that any additional withdrawal worsens the overdraft. To clarify, the COSMA's water retailers recognize the hydraulic connection between the underlying groundwater resources and the Eastern San Joaquin sub-basin, which is part of the larger Central Valley groundwater basin. The sub-basin extends from the Mokelumne River to the north, the Stanislaus River to the south, the San Joaquin River and Delta to the west, and the Sierra Nevada foothills to the east. The Calaveras River and Littlejohn's Creek run through the sub-basin and have some effect on the sub-basin behavior. The term "overdraft" is used by the commenter to describe the state of the groundwater resources in various contexts. For purposes of a common understanding, the term "overdraft" as it applies to describing the state of a groundwater aquifer and the impact of groundwater pumping is defined and illustrated in Appendix D of this document. Based on the definitions and supporting data in Appendix D, the City of Stockton Metropolitan Area (COSMA) has consistently described its continued use of the aquifer in a conservative manner to maintain equilibrium and improve hydraulic connections with natural recharge sources as described in published documents (the DWSP Feasibility Report, General Plan Update WSE, new development WSAs and COSMUD's 2005 Urban Water Management Plan). The Central Valley groundwater basin (and the San Joaquin sub-basin) is a firm and reliable water supply for the COSMA so long as average groundwater extractions remain at or below sustainable levels of recharge. It is imperative that these withdrawals occur without worsening the existing condition. Indeed, reduced pumping within urban areas, including the COSMA, can improve conditions throughout the basin. The COSMA's location adjacent to the significant groundwater recharge sources of the San Joaquin River and Delta make it an ideal location for maintaining a strong hydraulic connection with the recharge source and management of withdrawals to help avoid or minimize the rate of movement of saline water from the west. In addition, active recharge programs such as storm drainage retention basins, unlined conveyance canals, and storage ponds associated with surface water treatment activities also contribute to the overall recharge of the groundwater basin.

The data supports the COSMA's ability to influence the underlying groundwater conditions and the location of the regional cone of depression. The City's actions in limiting its own pumping are improving the hydraulic connection between the major recharge sources. It is also clear that the COSMA can improve regional groundwater conditions. However, agricultural pumping to the east can

dramatically impact groundwater conditions in the vicinity where groundwater extractions are taking place. Based on historical data, recovery of the basin in these areas appears to occur rapidly when pumping activities cease or surface water is used in-lieu of groundwater. The analysis in the Tidewater Development WSA concludes that projected water use within the San Joaquin sub-basin will stay within the pumping amounts contemplated in the Eastern San Joaquin Groundwater Basin Groundwater Management Plan (GMP) (Northeastern San Joaquin County Groundwater Banking Authority (GBA), September 2004). The GMP contains significant and relevant information as it relates to the evaluation of basin-wide sustainability and the need to monitor groundwater elevations and water quality, and provide the most efficient means of bringing surface water into the basin. While the GMP concludes that substantive measures need to take place within the groundwater basin to protect groundwater supplies, the findings indicate that through integrated regional cooperation, groundwater use can be sustainable. Specific projects identified in the GBA's GMP as meeting the BMOs are included in the comprehensive evaluation completed as part of the Northeastern San Joaquin Groundwater Banking Authority Integrated Regional Water Management Plan (IRWMP).

> The IRWMP defines and integrates key water management strategies and establishes a course of action for the implementation of a comprehensive solution for water supplies in Eastern San Joaquin County.

(GBA Press Release, July 26, 2007)

In Tables 2-4 and 2-5 of the GMP, total water demand for the entire Basin (including the Central Valley sub-basin) in 1996 is estimated to be 82 thousand acre-feet per year (TAF/year) for M&I and 1,522 TAF/year for agriculture. In 2030, the estimates for M&I and agriculture are 241 TAF/year, and 1,390 TAF/year, respectively. When combined, the total difference results in a net increase in water demands of 27 TAF/year over the next 22 years. Demands used in the regional groundwater modeling for new development WSAs assume that M&I and agricultural demands outside the COSMA remain at 1990 levels (i.e., higher demand levels). But we know that this is not the case, particularly as agricultural demands are decreasing with the conversion from agricultural uses (over 4 AF/acre/year) to much less demanding municipal uses (1.6 to 2.2 AF/acre/year).

Furthermore, the GMP and DWSP go hand-in-hand in helping to achieve regional groundwater sustainability. The GMP provides several Basin Management Objectives (BMOs), as well as Best Management Practices (BMPs) for meeting those objectives. This regional objective is consistent with the third objective of the DWSP to improve the quality and quantity of groundwater supplies. Consequently, the DWSP is one of several conjunctive use programs that can help achieve the BMOs of the GMP, by helping to maintain and enhance regional groundwater elevations to meet the long-term needs of the basin's groundwater users.

The COSMUD has endeavored, and will continue to endeavor, to maintain groundwater extractions within the conservative sustainable yield of the regional aquifer consistent with its own policies in coordination with such agencies as the Northeastern San Joaquin County Groundwater Banking Authority. The COSMUD also supports regional programs outside the COSMA. The Stockton Area Water Suppliers (SAWS) and agricultural users continue to seek opportunities and partnerships in groundwater management strategies (e.g., the Integrated Regional Water Management Plan), and the COSMA water retailers continue to manage their portions of the groundwater basin within the existing partnership with SEWD. As seen by looking at historical groundwater elevation data, this combination

of efforts results in an optimization of San Joaquin County's total water resources without impacting overall groundwater quality or quantity in the COSMA and surrounding areas.

Under the COSMA water retailers' self-imposed groundwater management programs, the sustainable yield for lands converted to urban uses within the COSMA is 0.75 acre feet/acre/year. That is, as each new acre of planned development occurs, a maximum of 0.75 acre feet/year of groundwater can be extracted in anyone given year, and the average over multiple years cannot exceed 0.60 acre feet/year; a number far less than the 2 to 4 acre feet/acre/year if the land was historically irrigated for agriculture. In sum, increases in groundwater uses for municipal purposes throughout the basin are not anticipated to worsen present conditions. Instead, the combined benefits from implementing a conjunctive use program and the conversion from agricultural to urban uses should result in an average decline in overall groundwater use. See response to Comment SC-25 regarding the City's available water supplies.

SC-23: To access a source of water for the DWSP, the City filed an application for the appropriation of surplus water in the Delta under Water Code Sections 11460-11465, plus water the City is entitled to pursuant to Water Code Sections 1485. The water right permit issued in December 2005 is only for Section 1485 water. California Water Code Section 1485 relates to the recapturing of discharged and treated wastewater in the Delta. Diversions of Section 1485 water can therefore take place if the COSMUD is discharging treated wastewater, except during the months of April, May, and June when higher flows in the Delta are necessary to protect listed species in accordance with the Endangered Species Act (ESA). This limitation results in a curtailment in diversions and has already been taken into account in the WSA's evaluation of sufficient water supplies. Contrary to the comment, Term 91 applies only to diversions of water under California Water Code Sections 11460 et seq., also referred to as "area of origin" water. Consequently, Term 91 does not apply to the City's DWSP water rights permit, and thus does not impose the restrictions on balanced conditions set forth in the comment.

SC-24: The comment is making two points: the first point relates to the difference between planned water treatment capacity and actual capacity based on treatment plant operations and the ability to expand the existing SEWD WTP; and the second point disputes the concept of Agricultural Groundwater Credits and the application of such credits in the Tidewater WSA.

The commenter is incorrect in suggesting that the City has overestimated the actual production of the DWSP and SEWD water treatment plants. On production capacity and operational considerations, the WSA already assumes maintenance shutdown periods for both the SEWD and the DWSP water treatment plants. The SEWD water treatment plant is operated at 25% of its capacity during one full month in winter when water demands are at their lowest. The DWSP plant, on the other hand, would be shut down during periods of decreased diversions for protection of listed species and for annual maintenance. Reduced capacity in the water treatment plants due to high turbidity during winter flows is minimized by infrastructure improvements in both water treatment plants. The SEWD WTP is recognized as having raw water supplies coming from storage projects and an immediate watershed that produces low sediment loads at the SEWD WTP. The WSA's total average water production (at the project level of water demand) from the SEWD and DWSP water treatment plants is 40,000 acre feet (75 percent of capacity) and 15,000 acre feet (56 percent of capacity), respectively. Thus, the WSA accurately states the production capacity of the water treatment facilities. The expansion of the

SEWD WTP is not contingent upon acquiring more water rights; rather, the expansion will enable SEWD to deliver more water during conditions where existing water rights are maximized.

On the issue of Agricultural Groundwater credits, the studies of agricultural credits (see Appendix F of the Water Supply Evaluation of the General Plan Update) and the use of groundwater for municipal purposes in areas that have historically extracted groundwater for irrigation uses results in a significant decrease in groundwater pumping, contrary to comments made that equate urban pumping with agricultural pumping. Agricultural uses require anywhere from 2 to 4 acre feet/acre/year from groundwater. Under self-imposed groundwater management programs, the sustainable yield for lands converted to urban uses within the COSMA is 0.75 AF/ac/year. That is, as each new acre of planned development occurs, a maximum of 0.75 AF/year of groundwater can be extracted in anyone given year, and the average over multiple years cannot exceed 0.60 AF/year. The assumptions used in the Agricultural Credit study that was completed in support of the General Plan Update WSE considered the entire groundwater basin. The benefits of converting agricultural uses to urban uses were quantified through a regional groundwater model that covered all of San Joaquin County and included pumping from all users of the basin(s) with water demands as described above. Three constraints to the groundwater were formulated for the protection of the groundwater as follows:

1. Do not increase the rate of movement of the known salinity front along the western boundary of the COSMA. The gradient (or slope) of the groundwater piezometric surface (groundwater table) should not increase (or steepen) in the area of the existing salinity front.

2. Groundwater elevations within the COSMA should not go below pre-development conditions (assuming agricultural pumping) anywhere throughout the basin. This translates into a model constraint on groundwater elevations such that elevations shall not drop more than a foot within the COSMA. As a result, areas of historical agricultural pumping improve considerably due to the shift in pumping from those lands to the M&I wells of the three water retailers.

3. For regional basin protection, the lowest elevation of the regional cone of depression for San Joaquin sub-Basin is not to be lowered.

The resulting groundwater yield based on meeting these criteria was determined to be 0.87 acre feet/acre/year (a 0.12 AF/ac/year increase from the 0.75 AF/ac/year factor) and resulted in an increase (or benefit) of approximately 4.5 feet in groundwater elevations in the agricultural areas previously irrigated with groundwater and a 0.5 foot increase at the cone of depression to the east. The accounting of an agricultural credit would only be made at the time the irrigated lands develop to urban uses to avoid having the agricultural credit taken and used while agricultural irrigation is continuing to take place. With the above said neither the Tidewater WSA nor the General Plan Update WSE use agricultural credits to establish the determination of sufficiency in water supplies. The purpose of exploring Agricultural Credits was done to better understand how conversions of agricultural land affect the City of Stockton's overall groundwater use. In sum, increases in groundwater uses for municipal purposes throughout the basin are not anticipated to worsen present overdraft conditions. Instead, conversion from agricultural to urban uses should result in a net-decline in overall groundwater use by increasing the flexibility in implementing conjunctive use programs in areas historically irrigated with solely groundwater. This net-decline in groundwater use will be further enhanced as municipal and agricultural areas within the San Joaquin sub-basin implement other

cooperative conjunctive use programs where surface water is used for agriculture irrigation when available to allow natural recharge of the groundwater.

SC-25: The commenter is asking for evidence to prove with absolute certainty that sufficient water supplies are available for the Tidewater Development, and if the groundwater analysis included future uses of groundwater by surrounding communities. Current activities for acquiring additional surface water supplies are taking place and are undergoing contract negotiations that would ensure water availability over the 2035 General Plan Update planning horizon. For example, the existing South San Joaquin Irrigation District and Oakdale Irrigation District contracts are both being pursued to extend the transfers to beyond 2010. And since the City prepared and circulated the Draft EIR, the City has negotiated an additional 40-year contract with Woodbridge Irrigation District (WID) for 6,500 AF/year in surface water supplies, which is anticipated to be treated at the DWSP WTP during the time of year when Delta diversions are curtailed for fish (up to two months). As noted in Comment SC-19, the DWSP WTP is not restricted to the Section 1485 water right and can treat other water rights and contracts, if available. The new contract includes 6,500 AF/year initially with provisions for increasing to 13,000 AF/year as additional lands within the WID boundaries are annexed to the City of Stockton and converted to urban uses. Although the use of WID surface water still requires CEQA compliance (currently underway with anticipated 2009 completion date), the City is unaware of any environmental considerations that are likely to emerge through that process that would make the water unreliable.

Nevertheless, the City's water supply assessments for the General Plan Update and Tidewater Development demonstrate the considerable surface supplies available to meet the demands of the project and all current and planned future uses without WID or interim contract supplies in-place. This analysis results in an average annual groundwater extraction by COSMUD of 31,000 AF/year. The current 5-year average groundwater extraction rate is approximately 27,000 AF/year. In terms of establishing the availability of water supplies, CEQA does not require absolute certainty. As the California Supreme Court recently explained, "to satisfy CEQA, an EIR for a specific plan need not demonstrate certainty regarding the project's future water supplies" (Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova (2007) 40 Cal.4th 412.). Instead, it is sufficient if the record contains substantial evidence demonstrating a "reasonable likelihood" that the water supply will be available to meet the needs of the project. (Id.; see also response to Comment SC-21.) Here, the record contains substantial evidence that Phase 1 of the DWSP, groundwater, and other supplemental water supplies, such as water from the WID Purchase Agreement and transfers through SEWD, will be available to meet the needs of the Tidewater Development, as well as existing and reasonably foreseeable future uses, including build-out of the 2035 General Plan Update. This is more than sufficient to satisfy SB 610 and CEQA. As stated in the response to Comment SC-22, the COSMA water retailers are implementing the Eastern San Joaquin Groundwater Basin GMP's BMOs. The City of Stockton and other urbanized areas will continue to improve regional management of groundwater resources. As noted in Comment SC-22, a large part of the GMP BMOs is accomplished through projects like the DWSP that bring supplemental water supplies to the region that are targeted for improving the groundwater basin. The GMP assists the planning process for new urban growth outside the COSMA by holding to the same standard of groundwater protection and enhancement. The overall net effect of this action is a future reduction in the long term average extractions over the entire groundwater basin. This methodology is appropriate and conservative given that success of the GMP ensures an overall reduction in extractions in the basin.

SC-26: Refer to response to Comment SC-22 and SC·25 above for an understanding of the cooperation that is taking place throughout the basin to sustain groundwater as a supply for all users in the basin. The Eastern San Joaquin Groundwater Basin GMP summarizes the past, current, and future water supplies and use of groundwater for the cities of Lodi, Manteca, and Ripon. While each of these cities is reliant on groundwater, they are each pursuing and implementing projects and programs consistent with the GBA's GMP and IRWMP such as Lodi's purchase of WID water, and use of surplus SSJID surface water to serve the urban communities of Escalon, Manteca, Lathrop, and Tracy through the South County Surface Water Supply Project. Even though the Tidewater WSA does not quantify regional demand estimates for each municipality within the groundwater basin, COSMUD has applied a conservative methodology for estimating regional demand and the sustainable yield of the basin and sub-basins, as well as for setting management parameters for future groundwater pumping. This methodology relies on the regional San Joaquin County Integrated Groundwater Surface Water Model (SJC IGSM) that, in turn, was conditioned on the results from the State Department of Water Resources regional Central Valley groundwater model (CVGSM). Using the calibrated San Joaquin County IGSM model, the agricultural pumping within the urbanizing areas of the City of Stockton General Plan Update Urban Services Area were removed and replaced with municipal uses. With municipal uses substituted for agricultural uses within the Service Area (which occurs when the areas are developed), the model was re-run. Based on the results, groundwater elevations within the southern portion of the COSMA not only stabilized, but showed a significant replenishment of the basin and sub-basins. Groundwater elevations in the regional groundwater basin were not impacted. This is due to the highly consumptive nature of agricultural production as compared to municipal uses (i.e., growth outside of the City Stockton in neighboring cities will only further reduce groundwater extractions as higher agricultural uses are converted to lower municipal uses.

SC-27: The DEIR does describe the proposed expansion of the City's Regional Wastewater Control Facility (RWCF) on page 4-385. The description refers to the March 1999 Draft RWCF Master Plan Update, including the expansion plans, costs of expansion, and the funding mechanism (costs of additional facilities will be borne by the individual developments, such as Tidewater Crossing). Since the City will collect fees for the expansion from applicants at the time building permits are pulled, the actual timing of the expansion will lag the initial phases of the development process for the larger projects. Accordingly, the timing for implementation is connected with market demand. It should be noted, however, that the DEIR states "The Tidewater Crossing project is included in the future plans of the General Plan buildout and will be adequately served by the current RWCF." While fees collected for the Tidewater Crossing project will apply to the RWCF expansion program, the expansion is not necessary to serve the Tidewater Crossing project at this time. Implementation of Mitigation Measure WW-1 will ensure that significant impacts will not occur relative to the service capacity of the current RWCF. Therefore, the City believes that the whole "analysis" considers more than just the collection system.

SC-28: The specific improvements needed to expand the current RWCF are included in the March 1999 Master Plan, including the cost estimates for the expansion and timing. The Tidewater Crossing project in and of itself cannot control the timing for these improvements, rather they are incumbent on City MUD to manage the expansion and implementation program as fees are collected from

development projects. Since the development projects are driven by market demand, the actual RWCF expansion will follow accordingly. In any event, the Tidewater Crossing project can be developed under the capacity window of the current RWCF and is not dependent on the RWCF expansion.

The Tidewater Crossing project does have direct control over the immediate sewerage infrastructure needed to serve the project. The MDP outlines a Conceptual Master Wastewater Plan that establishes sewer line and trunk line sizing to serve the project needs. It should be noted that surveys were conducted for portions of a proposed 24-inch force that extends offsite along McKinley Boulevard to the north of the Tidewater Crossing project. These offsite improvements were included in the DEIR impact assessment as needed to evaluate cultural and biological resources. The pipeline extension will not have a direct impact on any residents or businesses.

SC-29: Impacts that occurred under the 1990 General Plan Buildout were identified using policies from that plan. Impacts that occurred under the 2035 General Plan Buildout scenario were evaluated against policies in that plan. Impacts to the roadway network under the EPAP condition were evaluated against the policies in the 1990 General Plan, as that plan is more stringent that the General Plan Update.

SC-30: The commenter is correct in that a number of impacts are identified as being significant and unavoidable. However, the majority of those impacted locations are outside of the City of Stockton's jurisdiction, either in the County, the City of Lathrop, or on a Caltrans facility. Feasible improvements were identified to mitigate many of these impacts. However, since neither the applicant nor the City can guarantee that the mitigation measures will be implemented, they are designated as significant and unavoidable. At other locations, there are no feasible improvements due to lack of available right–of-way. The project applicant will work with the various entities to implement mitigation measures identified in the DEIR.

SC-31: The San Joaquin County 2007 Regional Transportation Plan Project List contains widening I-5 between Roth Road and Otto Drive to 10 lanes as a Tier II project (project number SJ07-1025). Plus, the Caltrans Route Concept Report for I-5 through much of Stockton shows the need for 10 lanes in order to meet the LOS D standard. These lane requirements are based on 2020 forecasts which do not include all of the new development anticipated in the 2035 Stockton General Plan update. The Caltrans Route Concept Report for SR-99 also shows a need for 10 lanes, but because of right-of-way constraints, only 8 lanes are included. The project applicant is contributing towards the costs of freeway widening through the payment of fees.

Freeways in northern California that have 10 or more lanes include portions of I-680 (Walnut Creek), I-80 (Emeryville/Oakland/Bay Bridge), SR 101 (around SFO), SR-99 (Sacramento), I-5 (Sacramento) and SR 24 (Orinda).

SC-32: As stated by the court in San Franciscans for Reasonable Growth v City and County of San Francisco (1st Dist. 1989) 209 Cal. App.3d 1502, 1526 (258 Cal. Rptr. 267), "Nothing in CEQA requires a local legislative body… to enact legislation which uniformly applies a certain level or

standard of mitigation to all similar projects submitted for environmental review within its jurisdiction. Local entities retain legislative power to devise solutions to diminish environmental damage from future development." Thus there is nothing in CEQA that mandates that the City maintain a precise jobs-to-housing ratio within the boundaries of the project site. Therefore, the City does not support a measure that perfectly aligns the production of housing with jobs. Market conditions prohibit the ability of a developer/builder to create jobs and housing in lock step. The City can not predict the certainty of these processes to occur in tandem, rather can only plan for the long-term balancing of these processes. The City would be cautious of regulating jobs and housing in a coordinated manner, with one of the other potentially failing due to unfavorable market conditions or other unknown circumstances. The City appreciates the thought process, but cannot support the reality of implementation.

SC-33: The commentor states that the cumulative impacts analysis is inadequate for several reasons. The City disagrees with this comment. The commentor asserts that the DEIR fails to list the projects within the City of Stockton within the DEIR. However, table 3.2.A includes projects from the 2035 General Plan. As stated in CEQA guidelines 15125, "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published". A list of projects within the City of Stockton was included in the EIR and was accurate at the time the Notice of Preparation was published (December, 2005). Other projects referenced by the commentor excluded from the list were not in the entitlement queue at the time; therefore, the City believes it would be too speculative for meaningful consideration to include them in the cumulative analysis. Also, the traffic analysis performed for the proposed project included full buildout under the 2035 City General Plan, for these reasons, no revisions to the traffic, air quality, or noise analyses are necessary.

Second, the commentor asserts that the cumulative impact analysis does not quantify cumulative impacts. The City disagrees with this comment. The DEIR includes a discussion of cumulative impacts for each subject area, as well as analyses in each section of Chapter 4. Mitigation measures that could reduce or avoid the proposed project's contribution to any cumulative impacts are also identified. The commentor does not offer additional mitigation that would feasibly address any remaining cumulatively considerable contributions to significant and unavoidable cumulative impacts. To the degree that the commentor would have this project mitigate for the full cumulative impacts, the courts have consistently upheld the concept the CEQA does not require a lead agency to adopt mitigation measures that would apply to other projects in an attempt to offset those other projects' contribution to environmental impacts; rather, mitigation measures must actually relate to impacts caused by the proposed project under consideration. *Nollan v. California Coastal Commission* 483 U.S. 825 (1987) and *Dolan v. City of Tigard*, 512 U.S. 374 (1994).Where appropriate, cumulative impacts are discussed quantitatively (i.e., traffic and circulation); in other instances, as appropriate, cumulative impacts are discussed qualitatively. Therefore, the City believes the DEIR does provide decision makers with an objective measure of cumulative impacts and that the analysis is adequate, thus, no further revisions to the DEIR are necessary.

SC-34: The City believes the Tidewater Crossing EIR reasonably evaluated all possible impacts, including cumulative impacts, using both the 1990 General Plan and the recently approved 2035

General Plan. Projects considered for cumulative impact analysis were those approved and pending at the time the Notice of Preparation was published (see Response SC-33).

SC-35: Table 3.2.A of the DEIR includes a list of approved and pending projects from both the previously adopted 1990 City General Plan and the now adopted 2035 City General Plan. The commentor lists several projects that should be considered in the cumulative impact analysis of the DEIR. Most of the projects on this list are included in the DEIR analysis (see Table 3.2.A).Further, the other projects suggested by the commentor are not approved, and are not in the entitlement queue; therefore, the City believes it would be too speculative to include them in the cumulative analysis. Because the traffic analysis performed for the proposed project included full buildout under the 2035 City General Plan, the City believes that revisions to the traffic air quality, or noise analyses are necessary.

SC-36: The EIR analyzes four alternatives to the proposed project; the No Project Alternative, the All Light Industrial Alternative, the Mixed Use/Agriculture Alternative, and the Alternative design. Alternative 3, the Mixed Use/Agriculture Alternative, would reduce development of the project site significantly and reduce impacts to traffic. Since the DEIR found that water and sewer service impacts due to the proposed project were less-than-significant, the City believes that an additional alternative to reduce these impacts is unnecessary. Further, the City believes that an adequate range of alternatives was discussed for the proposed project to facilitate City decision makers in their assessment of the project.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

May 12, 2008

Jenny Liaw
City of Stockton
Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202

Project: Tidewater Crossing Master Development Plan (EIR2-05)
SCH# 2005122101

Subject: CEQA comments regarding the Draft Environmental Impact Report

District Reference No: 20080134

Dear Ms. Liaw:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) for the Tidewater Crossing Master Development Plan (Project). In response to the Notice of Preparation, the District requested the DIER include discussions regarding the issues below:

District Comments

1. Description of the regulatory environment and existing air quality conditions impacting the area – The DEIR appropriately addresses the regulatory environment, including local, state and federal agencies and the regulations in place to regulate air quality and control new sources of air pollution. The DEIR also appropriately addresses the existing air quality conditions impacting the City of Stockton. APCD-1

2. Existing emissions and projected pollutant emissions related to the increase in project source emissions and vehicle use, along with an analysis of the effects of these increases. The DEIR appropriately addresses the project's potential impact on Air Quality. The District concurs with the DEIR that the project may have a significant impact on air quality. As noted in the DEIR, despite describing all mitigation efforts to reduce air quality impacts, the document correctly specifies that such efforts APCD-2

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
Tel: (661) 326-6900 FAX: (661) 326-6985

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may not reduce impacts to levels of insignificance. All mitigations included in the DEIR should be implemented to the extent specified to reduce air quality impacts.

3. Identification of all existing District regulations that apply to the project – Development as a result of this project will be subject to District rules, regulations, and permitting requirements as specific development occurs.

Table 3.3.A, Land Use Summary, describes Neighborhoods A through N's primary use as residential. Per §2.1.1, the proposed project would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out the project includes 50 residential units.

The DEIR states the maximum allowable commercial development is 186,200 square feet on 16.6-acres. The proposed project would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out the project would include 2,000 square feet of commercial/retail space.

The DEIR states that 5.3 million square feet of leasable industrial space is proposed. The proposed project would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out the project would include any one of the following:

APCD-3

- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space; or
- 39,000 square feet of general office space.

The DEIR identifies approximately 19.4-acres as "school". The proposed project would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out the project would include 9,000 square feet of educational space.

The DEIR identifies approximately 24.3-acres as "public parks". The proposed project would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out the project would include 20,000 square feet of recreational space.

Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than seeking final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees, be made a condition of the project's approval.

4. Identification of all feasible measures that will reduce air quality impacts generated by the project – As the Tidewater Crossing Master Development Plan is the blueprint for future growth in an area of approximately 909-acres located near the southeast portion of the City of Stockton, it correctly provides a broad, generalized approach to the city's development within the plan area. However, as individual projects are developed, further environmental review may be necessary. There are emission-reducing options, not identified in the DEIR, available to project proponents to reduce the impact on air quality. One such option is a voluntary Air Quality Mitigation Agreement (Mitigation Agreement) between the project proponent and the District. District staff is available to meet with project proponents to discuss Mitigation Agreements for specific projects. For more information, or questions concerning this topic, please call Dan Barber, PhD, Supervisor CEQA/ISR, at (559) 230-5840. APCD-4

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information,. please call Georgia Stewart at (559) 230-5937 and provide the reference number at the top of this letter.

Sincerely,

David Warner
Director of Permit Services

for Arnaud Marjollet
Permit Services Manager

DW: gs

San Joaquin Valley Air Pollution Control District (May 12, 2008)

Response to Comments:

APCD-1: Comment noted.

APCD-2: Comment noted.

APCD-3: Comment noted. The project applicant is required to comply with District Rule 9510.

APCD-4: These issues have been addressed in the selected sections of revised DEIR (July 2008) presented in Appendix A.

3.0 TRANSMITTALS, NOTICES AND LEGAL ADVERTISEMENTS

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

April 22, 2008

RECEIVED
APR 23 2008
CITY OF STOCKTON
COMMUNITY DEVELOPMENT

Jenny Liaw
City of Stockton
Community Development Department
345 N. El Dorado Street
Stockton, CA 95202

Subject: Tidewater Crossing Master Development Plan Project
SCH#: 2005122101

Dear Jenny Liaw:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on April 21, 2008, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2005122101
Project Title Tidewater Crossing Master Development Plan Project
Lead Agency Stockton, City of

Type EIR Draft EIR

Description Development of an industrial/residential project on lands south of and contiguous to the Stockton Metropolitan Airport. The proposed project includes a General Plan Amendment, Master Development Plan (MDP), Prezoning, Tentative Tract Map, Sphere of Influence amendment for a portion of the project site, Annexation and Development Agreement for approximately 909.0 acres predominately in farmland and rural residential uses. The MDP includes 224 acres of Industrial, 94 acres of Medium Density Residential, 10 acres of High Density Residential, 265 acres of Low Density Residential, 17 acres of Retail/Commercial, 35 acres of Parks/Buffers/Open Space, 62 acres of sloughs and easements, 19 acres of Elementary School, 8 acres of railroad corridor and 95 acre flood control/detention basin is planned within the southern portion of the planned industrial area to manage peak storm flows. The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west, and East French Camp Road to the south.

Lead Agency Contact

Name Jenny Liaw
Agency City of Stockton
Phone (209) 937-8266 **Fax**
email
Address Community Development Department
345 N. El Dorado Street
City Stockton **State** CA **Zip** 95202

Project Location

County San Joaquin
City Stockton
Region
Cross Streets French Camp Road, Airport Way, UPRR
Parcel No. 177-050-05, 08, 09, 25; 177-100-02, 03, 07; 177-110-04, 05; 201-020-01
Township 1S **Range** 7E **Section** **Base** MDB&M

Proximity to:

Highways I-5, 99
Airports Stockton Metropolitan
Railways UPRR
Waterways French Camp Slough
Schools French Camp Elementary
Land Use Zoning: AU-20, Limited Industrial, AG-40
General Plan: Industrial and Agriculture

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Other Issues; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Central Valley Flood Protection Board; Department of Housing and Community Development; Department of Fish and Game, Region 2; Department of Water Resources; Department of Conservation; California Highway Patrol; Caltrans, District 10; Caltrans, Division of Aeronautics; Air Resources Board, Transportation Projects; Department of Toxic Substances Control

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Date Received 03/06/2008 *Start of Review* 03/06/2008 *End of Review* 04/21/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

RECEIVED
AUG 22 2008
CITY OF STOCKTON
COMMUNITY DEVELOPMENT DEPT.

August 19, 2008

Jenny Liaw
City of Stockton
345 North El Dorado Street
Stockton, CA 95202

Subject: Recirculation of Tidewater Crossing Master Development Plan Project
SCH#: 2005122101

Dear Jenny Liaw:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 18, 2008, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2005122101
Project Title Recirculation of Tidewater Crossing Master Development Plan Project
Lead Agency Stockton, City of

Type EIR Draft EIR

Description Development of an industrial/residential project on lands south of and contiguous to the Stockton Metropolitan Airport. The proposed project includes a General Plan Amendment, Master Development Plan (MDP), Prezoning, Tentative Tract Map, Sphere of Influence amendment for a portion of the project site. Annexation and Development Agreement for approximately 909.0 acres predominately in farmland and rural residential uses. The MDP includes 224 acres of Industrial, 94 acres of Medium Density Residential, 10 acres of High Density Residential, 265 acres of Low Density Residential, 17 acres of Retail/Commercial, 35 acres of Parks/Buffers/Open Space, 62 acres of sloughs and easements, 19 acres of Elementary School, 8 acres of railroad corridor and 95 acre flood control/detention basin is planned within the southern portion of the planned industrial area to manage peak storm flows. The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east. Union Pacific Railroad to the west and East French Camp Road to the south. On March 6, 2008, the City of Stockton circulated the March 2008 Draft EIR document for public review initiating a 45 day public review period that ended on April 21, 2008. Several comments received by the City involved greenhouse gas (GHG) emissions generated by the project and the potential effects expected on global warming. The City of Stockton has re-examined the project's effects on global warming due to the contribution of GHG and determined to prepare the supplemental information and analyses presented in this revised Air Quality and Global Climate Change sections for recirculation.

Lead Agency Contact

Name Jenny Liaw
Agency City of Stockton
Phone (209) 937-8266 **Fax**
email
Address 345 North El Dorado Street
City Stockton **State** CA **Zip** 95202

Project Location

County San Joaquin
City Stockton
Region
Lat / Long
Cross Streets French Camp Road, Airport Way, UPRR
Parcel No. 177-050-05, 08, 09, 25; 177-100-02, 03, 07; 177-110-04, 05; 201-020-01
Township 1S **Range** 7E **Section** **Base** MDB&M

Proximity to:

Highways I-5, 99
Airports Stockton Metropolitan
Railways UPRR
Waterways French Camp Slough
Schools French Camp Elementary School (Manteca Unified)
Land Use Industrial: AU-20/ Industrial: Limited Industrial/ Agriculture: AU-20/ Agriculture: AG-40

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Reviewing Agencies	Resources Agency; Department of Conservation; Department of Fish and Game, Region 2; Department of Parks and Recreation; Central Valley Flood Protection Board; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 10; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; Department of Housing and Community Development

Date Received 07/03/2008 ***Start of Review*** 07/03/2008 ***End of Review*** 08/18/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

Form A

Notice of Completion and Environmental Document Transmittal

SCH # 2005122101

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: Tidewater Crossing Master Development Plan Project

Lead Agency: City of Stockton Contact Person: Jenny Liaw, Senior Planner

Street Address: 345 N. El Dorado Street Phone: (209) 937-8266

City: Stockton Zip: 95202 County: San Joaquin

Project Location:

County: San Joaquin City/Nearest Community: Stockton

Cross Streets: French Camp Road, Airport Way, UPRR Zip Code: 95231 Total Acres: 878

APN(s): 177-050-05; 177-050-08; 177-050-09; 177-050-25; 177-1 00-02; 177-1 00-03; 177-100-07; 177-1 10-04; 177-1 10-05; 201-020-01

Twp. T1S Range: R7E Base: MDBM

Within 2 Miles: State Hwy #: I-5, Highway 99 Waterways: French Camp Slough

Airports: Stockton Metropolitan Railways: UPRR Schools: French Camp Elementary (Manteca Unified),

Document Type:

CEQA: ☐ NOP ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Early Cons ☐ Other ☐ Neg Dec ☒ Draft EIR

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☒ Annexation
☒ General Plan Amendment ☒ Master Plan ☒ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☒ Site Plan ☒ Land Division (Subdivision, etc.) ☒ Other Development Agreement
/ Sphere of Influence Amendment (portion)

Development Type:

☒ Residential: Units 2,663 Acres 369 +/-
☐ Office: Sq. ft. Acres Employees
☒ Commercial: Sq. ft. Acres 17 Employees
☒ Industrial: Sq. ft. Acres 224 Employees
☐ Educational Elementary School
☒ Recreational 89 Acres

☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type Watts
☐ Waste Treatment: Type
Hazardous Waste: Type
☐ Other:

Funding (approx.):

Federal $ State $ Total $

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Agricultural Land ☐ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ Air Quality ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Archeological/Historical ☐ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Wildlife
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Growth Inducing
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Landuse
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☒ Cumulative Effects
☐ Fiscal ☒ Recreation/Parks ☐ Vegetation ☒ Other Adjacent Airport

Present Land Use/Zoning/General Plan Designation:

Existing GP Designation	Proposed GP Designation	Acres	Existing Zoning	Proposed Zoning	Acres
Industrial	Low/Medium Residential	50.1	AU-20	RL	50.1
Industrial	Industrial	3.4	Limited Industrial	IL	3.4
Agriculture	Low/Medium Density Res.	115.2	AU-20	RL	115.2
Agriculture	Rural Residential Estates	24.1	AU-20	RE	24.1
Agriculture	Low/Medium Residential	12.3	AU-20	RM	12.3
Agriculture	High Density Residential	11.2	AG-40	RH	11.2
Agriculture	Elementary School	11.6	AG-40	PF	11.6
Agriculture	Low/Medium Residential	31.3	AG-40	RM	31.3
Agriculture	Low/Medium Residential	143.7	AG-40	RL	143.7
Agriculture	Commercial	20.7	AG-40	CG	20.7
Agriculture	Industrial	348.6	AG-40	IL	348.6
Agriculture	Open Space	89.0	AG-40	PF	89.0

Project Description: Development of an industrial/residential project on lands south of and contiguous to the Stockton Metropolitan Airport. The proposed project includes a General Plan Amendment, Master Development Plan (MDP), Prezoning, Tentative Tract Map, Sphere of Influence amendment for a portion of the project site), Annexation and Development Agreement for approximately 909.0 acres predominately in farmland and rural residential uses. The MDP includes 224 acres of Industrial, 94 acres of Medium Density Residential, 10 acres of High Density Residential, 265 acres of Low Density Residential, 17 acres of Retail/Commercial, 35 acres of Parks/Buffers/Open Space, 62 acres of sloughs and easements, 19 acres of Elementary School, 8 acres of railroad corridor and 95 acre flood control/detention basin is planned within the southern portion of the planned industrial area to manage peak storm flows. The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east. Union Pacific Railroad to the west and East French Camp Road to the south.

Form A

Notice of Completion and Environmental Document Transmittal

SCH # 2005122101

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: Recirculation of Tidewater Crossing Master Development Plan Project

Lead Agency: City of Stockton Contact Person: Jenny Liaw, Senior Planner

Street Address: 345 N. El Dorado Street Phone: (209) 937-8266

City: Stockton Zip: 95202 County: San Joaquin

– Project Location:

County: San Joaquin City/Nearest Community: Stockton

Cross Streets: French Camp Road, Airport Way, UPRR Zip Code: 95231 Total Acres: 878

APN(s): 177-050-05; 177-050-08; 177-050-09; 177-050-25; 177-1 00-02; 177-1 00-03; 177-100-07; 177-1 10-04; 177-1 10-05; 201-020-01

Twp. T1S Range: R7E Base: MDBM

Within 2 Miles: State Hwy #: I-5, Highway 99 Waterways: French Camp Slough

Airports: Stockton Metropolitan Railways: UPRR Schools: French Camp Elementary (Manteca Unified),

Document Type:

CEQA: ☐ NOP ☐ Supplement/Subsequent EIR ☐ Early Cons (Prior SCH No.) ☐ Neg Dec ☐ Other ☒ Draft EIR (Selected Sections)

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☒ Annexation
☒ General Plan Amendment ☒ Master Plan ☒ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☒ Site Plan ☒ Land Division (Subdivision, etc.) ☒ Other Development Agreement
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Development Type:

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☒ Recreational 89 Acres

☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type Watts
☐ Waste Treatment: Type
Hazardous Waste: Type
☐ Other:

Funding (approx.): Federal $ State $ Total $

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Agricultural Land ☐ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ **Air Quality (revised)** ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Archeological/Historical ☐ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Wildlife
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Growth Inducing
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Landuse
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☒ Cumulative Effects
☐ Fiscal ☒ Recreation/Parks ☐ Vegetation ☒ **Other Global Climate Change (new section)**

Present Land Use/Zoning/General Plan Designation:

Existing GP Designation	Proposed GP Designation	Acres	Existing Zoning	Proposed Zoning	Acres
Industrial	Low/Medium Residential	50.1	AU-20	RL	50.1
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CITY OF STOCKTON
PUBLIC NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT
(Pursuant to Public Resources Code Sections 21092 and 21092.3 and Cal. Code of Regulations Title 14, Section 15087)

The City of Stockton Community Development Department has completed, independently reviewed and analyzed the following Draft Environmental Impact Report: DEIR 2-05 for the Tidewater Crossing Master Development Plan (TWCMDP), which would guide development of a Industrial, commercial, residential community in six separate phases. The TWCMDP will contain ±909 acres with industrial, commercial, low/medium/high density residential uses and include 224 acres of Industrial, 17 acres of Commercial, 265 acres of Low Density Residential, 94 acres of Medium Density Residential, 10 acres of High-Density Residential, 62 acres of Sloughs and Easements, 35 acres of Parks and Open Space, 19 acres of elementary school, 8 acres of Railroad Corridor and 95 acres of Flood Control Basin.

Entitlement being sought by the project applicant includes approval of General Plan Amendment, Prezoning, Development Agreement, Master Development Plan, Tentative Map, Annexation, Sphere of Influence Amendment (portion). The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp Road to the south.

A copy of the Draft EIR may be reviewed and/or obtained at the following addresses:

Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202

or at: *http://www.stocktongov.com/CD/index.cfm*

The Draft EIR may also be reviewed at the following public library locations:

Cesar Chavez Central Library
605 North El Dorado Street
Stockton, CA 95202

Maya Angelou Branch Library
2324 Pock Lane
Stockton, CA 95205

Fair Oaks Branch Library
2370 East Main Street
Stockton, CA 95205

Margaret K. Troke Branch Library
502 West Benjamin Holt Drive
Stockton, CA 95207

Any written comments on this document must be received at this same address no later than **April 21, 2008**. Further information may be obtained by contacting the City Planning Division at (209) 937-8266.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

PLEASE PRINT ON **March 6, 2008**.

Bill: Community Development Department
Planning Division
425 North El Dorado Street
Stockton, CA 95202-1997

Please enclose Affidavit of Publication with invoice.

CITY OF STOCKTON
PUBLIC NOTICE OF AVAILABILITY
RECIRCULATION OF DRAFT ENVIRONMENTAL IMPACT REPORT FOR REVISED AIR QUALITY AND GLOBAL CLIMATE CHANGE SECTIONS

(Pursuant to Public Resources Code Sections 21092 and 21092.3 and Cal. Code of Regulations Title 14, Section 15087)

The City of Stockton Community Development Department has completed, independently reviewed and analyzed the following revised sections for Draft Environmental Impact Report: DEIR 2-05 for the Tidewater Crossing Master Development Plan (TWCMDP), which would guide development of a Industrial, commercial, residential community in six separate phases. The TWCMDP will contain ±909 acres with industrial, commercial, low/medium/high density residential uses and include 224 acres of Industrial, 17 acres of Commercial, 265 acres of Low Density Residential, 94 acres of Medium Density Residential, 10 acres of High-Density Residential, 62 acres of Sloughs and Easements, 35 acres of Parks and Open Space, 19 acres of elementary school, 8 acres of Railroad Corridor and 95 acres of Flood Control Basin. On March 6, 2008, the City of Stockton circulated the March 2008 Draft EIR document for public review initiating a 45 day public review period that ended on April 21, 2008. Several comments received by the City involved greenhouse gas (GHG) emissions generated by the project and the potential effects expected on global warming. The City of Stockton has re-examined the project's effects on global warming due to the contribution of GHG and determined to prepare the supplemental information and analyses presented in this revised Air Quality and Global Climate Change sections for recirculation.

Entitlement being sought by the project applicant includes approval of General Plan Amendment, Prezoning, Development Agreement, Master Development Plan, Tentative Map, Annexation, Sphere of Influence Amendment (portion). The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp Road to the south.

A copy of the Recirculated Draft EIR may be reviewed and/or obtained at the following addresses:

Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202

or at: *http://www.stocktongov.com/CD/index.cfm*

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Stockton, CA 95202

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2324 Pock Lane
Stockton, CA 95205

Fair Oaks Branch Library
2370 East Main Street
Stockton, CA 95205

Margaret K. Troke Branch Library
502 West Benjamin Holt Drive
Stockton, CA 95207

Any written comments on this document must be received at this same address no later than **August 20, 2008 at 5:00 p.m.**. Further information may be obtained by contacting the City Planning Division at (209) 937-8266.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

PLEASE PRINT ON **July 7, 2008.**

Bill: Community Development Department
Planning Division
425 North El Dorado Street
Stockton, CA 95202-1997

Please enclose Affidavit of Publication with invoice.

CITY OF STOCKTON
STATE CLEARINGHOUSE TRANSMITTAL LETTER
FOR ENVIRONMENTAL DOCUMENTS

TO: State Clearinghouse
Office of Planning & Research
P.O. Box 3044
Sacramento, CA 95812-3044

FROM: Lead Agency
City of Stockton
c/o Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202-1997

SUBJECT: **PUBLIC REVIEW OF A DRAFT ENVIRONMENAL IMPACT REPORT FOR THE TIDEWATER CROSSING MASTER DEVELOPMENT PLAN PROJECT (EIR2-05)**

Enclosed please find 15 copies of the above-named environmental document for review, comments, recommendations, and distribution to other State agencies which have jurisdiction over one or more aspects of the project. Also enclosed is a list of agencies to which the environmental document and/or related Public Notice of Completion (NOC) has been referred directly.

Please schedule the review period to end on **April 21, 2008 by 5:00 p.m.** and return the comments to the above-noted Lead Agency address.

If you have any questions or comments regarding this matter, please contact Jenny Liaw, Senior Planner the above-noted Lead Agency address or by telephone at (209) 937-8316.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

By Jenny Liaw
Jenny Liaw, Senior Planner

Date: March 5, 2008

Enclosures

MMN:

::ODMA\GRPWISE\COS.CDD.CDD_Library:66107.1

CITY OF STOCKTON
STATE CLEARINGHOUSE TRANSMITTAL LETTER
FOR ENVIRONMENTAL DOCUMENTS

TO: State Clearinghouse
Office of Planning & Research
P.O. Box 3044
Sacramento, CA 95812-3044

FROM: Lead Agency
City of Stockton
c/o Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202-1997

SUBJECT: **PUBLIC REVIEW OF THE RECIRCULATED DRAFT ENVIRONMENAL IMPACT REPORT FOR REVISED AIR QUALITY AND GLOBAL CLIMATE CHANGE SECTIONS FOR THE TIDEWATER CROSSING MASTER DEVELOPMENT PLAN PROJECT (EIR2-05)**

Enclosed please find 15 copies of the above-named environmental document for review, comments, recommendations, and distribution to other State agencies which have jurisdiction over one or more aspects of the project. Also enclosed is a list of agencies to which the environmental document and/or related Public Notice of Completion (NOC) has been referred directly.

Please schedule the review period to end on **August 20, 2008 by 5:00 p.m.** and return the comments to the above-noted Lead Agency address.

If you have any questions or comments regarding this matter, please contact Jenny Liaw , Senior Planner the above-noted Lead Agency address or by telephone at (209) 937-8316.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

By _____
Jenny Liaw, Senior Planner

Date: July 3, 2008

Enclosures

MMN:

::ODMA\GRPWISE\COS.CDD.CDD_Library:68056.1

CITY OF STOCKTON
ENVIRONMENTAL DOCUMENT TRANSMITTAL LETTER

March 6, 2008

TO: (See Attached List)

FROM: Lead Agency
City of Stockton
c/o Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202

SUBJECT: **PUBLIC REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE TIDEWATER CROSSING MASTER DEVELOPEMENT PLAN (EIR2-05)**

Enclosed is a copy of the Notice of Availability (NOA) and Notice of Completion (NOC) for the above-named environmental document. Also, a copy of the environmental document, with applicable attachments, is also being transmitted to each "Responsible", "Trustee", and other public agency included on the attached list, as applicable. State agencies, however, should obtain the environmental document, with attachments, directly from the State Clearinghouse.

The remaining agencies, organizations and individuals on the attached list are receiving only this transmittal letter and the NOA/NOC. Public agencies may obtain a free copy of the above-named environmental document at the above-noted Lead Agency address. Private individuals, organizations, and corporations may purchase a copy of the environmental document for a fee of $50.00. If mailing is requested, please remit an additional fee of $5.00 for postage and handling. A CD version of the DEIR is available for a fee of $5.00. If mailing is requested, please remit an additional fee of $2.00 for postage and handling. The DEIR is available on the City's website: www.stocktongov.com. Checks should be made payable to the City of Stockton and any written orders must identify the project title and document identification number, as noted above.

Any written comments regarding the above-named environmental document must be received at the Lead Agency address no later than **April 21, 2008 by 5:00 p.m.** If no comments are received by the date indicated, it will be assumed that the document is acceptable. Further information may be obtained by contacting Jenny Liaw, Senior Planner the Community Development Department, Planning Division at (209) 937-8316.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

By Jenny Liaw
Jenny Liaw, Senior Planner

Date March 5, 2008

MMN: JL

Enclosures

::ODMA\GRPWISE\COS.CDD.CDD_Library:66104.1

CITY OF STOCKTON
ENVIRONMENTAL DOCUMENT TRANSMITTAL LETTER

July 3, 2008

TO: (See Attached List)

FROM: Lead Agency
City of Stockton
c/o Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202

SUBJECT: **PUBLIC REVIEW OF THE RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT FOR REVISED AIR QUALITY AND GLOBAL CLIMATE CHANG SECTIONS FOR THE TIDEWATER CROSSING MASTER DEVELOPEMENT PLAN (EIR2-05)**

Enclosed is a copy of the Notice of Availability (NOA) and Notice of Completion (NOC) for the above-named environmental document. Also, a copy of the environmental document, with applicable attachments, is also being transmitted to each "Responsible", "Trustee", and other public agency included on the attached list, as applicable. State agencies, however, should obtain the environmental document, with attachments, directly from the State Clearinghouse.

The remaining agencies, organizations and individuals on the attached list are receiving only this transmittal letter and the NOA/NOC. Public agencies may obtain a free copy of the above-named environmental document at the above-noted Lead Agency address. Private individuals, organizations, and corporations may purchase a copy of the environmental document for a fee of $30.00. If mailing is requested, please remit an additional fee of $5.00 for postage and handling. A CD version of the DEIR-revised Air Quality and Global Climate Change sections is available for a fee of $5.00. If mailing is requested, please remit an additional fee of $2.00 for postage and handling. The DEIR-revised Air Quality and Global Climate Change sections are available on the City's website: www.stocktongov.com. Checks should be made payable to the City of Stockton and any written orders must identify the project title and document identification number, as noted above.

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MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

By Jenny Liaw
Jenny Liaw, Senior Planner

Date July 3, 2008

MMN: JL
Enclosures
::ODMA\GRPWISE\COS.CDD.CDD_Library:68058.1

PROOF OF PUBLICATION
NOTICE

STATE OF CALIFORNIA
COUNTY OF SAN JOAQUIN

THE UNDERSIGNED SAYS:

I am a citizen of the United States and a resident of San Joaquin County; I am over the age of 18 years and not a part to or interested in the above-entitled matter. I am the principal clerk of the printer of THE RECORD, a newspaper of general publication, printed and published daily in the City of Stockton, County of San Joaquin and which newspaper has been adjudged a newspaper of general circulation in the City of Stockton and the County of San Joaquin by the Superior Court of the County of San Joaquin, State of California, under the date of February 26, 1952, File No. 52857, San Joaquin County Records; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates,

To wit, March 6
All in the year, 2008

I declare under penalty of perjury that the foregoing is true and correct.
Executed on March 6th, 2008
In Stockton, California.

Laurie Costello
Laurie Costello

CITY OF STOCKTON
PUBLIC NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT
(Pursuant to Public Resources Code Sections 21092 and 21092.3 and Cal. Code of Regulations Title 14, Section 15087)

The City of Stockton Community Development Department has completed, independently reviewed and analyzed the following Draft Environmental Impact Report: DEIR 2-05 for the Tidewater Crossing Master Development Plan (TWCMDP), which would guide development of a industrial, commercial, residential community in six separate phases. The TWCMDP will contain ±909 acres with Industrial, commercial, low/medium/high density residential uses and include 224 acres of Industrial, 17 acres of Commercial, 265 acres of Low Density Residential, 94 acres of Medium Density Residential, 10 acres of High Density Residential, 62 acres of Sloughs and Easements, 35 acres of Parks and Open Space, 19 acres of elementary school, 8 acres of Railroad Corridor and 95 acres of Flood Control Basin.

Entitlement being sought by the project applicant includes approval of General Plan Amendment, Prezoning, Development Agreement, Master Development Plan, Tentative Map, Annexation, Sphere of Influence Amendment. The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp Road to the south.

A copy of the Draft EIR may be reviewed and/or obtained at the following addresses:

Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202
or at: http://www.stocktongov.com/CD/index.cfm

The Draft EIR may also be reviewed at the following public library locations:

Cesar Chavez Central Library
605 North El Dorado Street
Stockton, CA 95205

Maya Angelou Branch Library
2324 Pock Lane
Stockton, CA 95202

Fair Oaks Branch Library
2370 East Main Street
Stockton, CA 95205

Margaret K. Troke Branch Library
502 West Benjamin Holt Drive
Stockton, CA 95207

Any written comments on this document must be received at this same address no later than April 21, 2008. Further information may be obtained by contacting the City Planning Division at (209) 937-8266.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

#670568 3/6/08

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COMMUNITY DEVELOPMENT DEPT.

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DEIR 2-05

PROOF OF PUBLICATION
NOTICE

STATE OF CALIFORNIA
COUNTY OF SAN JOAQUIN

THE UNDERSIGNED SAYS:

I am a citizen of the United States and a resident of San Joaquin County; I am over the age of 18 years and not a part to or interested in the above-entitled matter. I am the principal clerk of the printer of THE RECORD, a newspaper of general publication, printed and published daily in the City of Stockton, County of San Joaquin and which newspaper has been adjudged a newspaper of general circulation in the City of Stockton and the County of San Joaquin by the Superior Court of the County of San Joaquin, State of California, under the date of February 26, 1952, File No. 52857, San Joaquin County Records; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates,
To wit , July 7

All in the year, 2008

I declare under penalty of perjury that the foregoing is true and correct.
Executed on July 7th ,2008
In Stockton, California.

Laurie Costello

CITY OF STOCKTON
PUBLIC NOTICE OF AVAILABILITY
RECIRCULATION OF DRAFT ENVIRONMENTAL IMPACT REPORT FOR REVISED AIR QUALITY AND GLOBAL CLIMATE CHANGE SECTIONS
(Pursuant to Public Resources Code Sections 21092 and 21092.3 and Cal. Code of Regulations Title 14, Section 15087)

The City of Stockton Community Development Department has completed independently reviewed and analyzed the following revised sections for Draft Environmental Impact Report: DEIR 2-05 for the Tidewater Crossing Master Development Plan (TWCMDP), which would guide development of a industrial, commercial, residential community in six separate phases. The TWCMDP will contain ±909 acres with industrial, commercial, low/medium/high density residential uses and include 224 acres of Industrial, 17 acres of Commercial, 265 acres of Low Density Residential, 94 acres of Medium Density Residential, 10 acres of High Density Residential, 62 acres of Sloughs and Easements, 35 acres of Parks and Open Space, 19 acres of elementary school, 8 acres of Railroad Corridor and 95 acres of Flood Control Basin. On March 6, 2008, the City of Stockton circulated the March 2008 Draft EIR document for public review initiating a 45 day public review period that ended on April 21, 2008. Several comments received by the City involved greenhouse gas (GHG) emissions generated by the project and the potential effects expected on global warming. The City of Stockton has re-examined the project's effects on global warming due to the contribution of GHG and determined to prepare the supplemental information and analyses presented in this revised Air Quality and Global Climate Change sections for recirculation.

Entitlement being sought by the project applicant includes approval of General Plan Amendment, Prezoning, Development Agreement, Master Development Plan, Tentative Map, Annexation, Sphere of Influence Amendment (portion). The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp Road to the south.

A copy of the Recirculated Draft EIR for revised Air Quality and Global Climate Change sections may be reviewed and/or obtained at the following addresses:

Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202
or at: http://www.stocktongov.com/CD/index.cfm

The Recirculated Draft EIR for revised Air Quality and Global Climate Change sections may also be reviewed at the following public library locations:

Cesar Chavez Central Library
605 North El Dorado Street
Stockton, CA 95202

Maya Angelou Branch Library
2324 Rock Lane
Stockton, CA 95205

Fair Oaks Branch Library
2370 East Main Street
Stockton, CA 95205

Margaret K. Troke Branch Library
502 West Benjamin Holt Drive
Stockton, CA 95207

Any written comments on this document must be received at this same address no later than **August 20, 2008 at 5:00 p.m.** Further information may be obtained by contacting the City Planning Division at (209) 937-8266.

MICHAEL M. NIBLOCK, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

#697607 7/7/08

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COMMUNITY DEVELOPMENT DEPT.

APPENDIX A

RECIRCULATED SECTIONS OF THE DRAFT EIR

SELECTED SECTIONS

REVISED DRAFT

ENVIRONMENTAL IMPACT REPORT

TIDEWATER CROSSING

STOCKTON, CALIFORNIA

EIR FILE NO. 2-05

SCH#2005122101

Submitted to:

City of Stockton
Community Development Department
345 N El Dorado Street
Stockton, CA 95202

Prepared by:

LSA Associates, Inc.
4200 Rocklin Road, Suite 11B
Rocklin, California 95677
(916) 630-4600

LSA Project No. HDA530

LSA

July 2008

CHAPTER 1.0 INTRODUCTION

This document has been prepared to document changes that have occurred with the proposed project and/or conditions that potentially affect previous findings presented in the March 2008 Draft Environmental Impact Report (DEIR) prepared for the Tidewater Crossing project. Specifically, this document includes revisions to the Air Quality Section (Section 4.2) of the March 2008 DEIR, which address comments received by the City of Stockton during the public circulation period specific to items described below, and revisions to the Air Quality Section that address consistency with the City's recently adopted 2035 General Plan. Additionally, In light of the comments received, and recent availability of information and analytical tools, the City of Stockton has re-examined the project's effects on global warming due to the contribution of GHG Emissions and has prepared the supplemental information and analysis presented in this revised document.

By way of background, on March 6, 2008, the City of Stockton circulated the March 2008 DEIR document for public review initiating a 45 day public review period that ended on April 21, 2008. A number of comments that were received by the City of Stockton during that review period will be addressed in conjunction with the preparation of the Final Environmental Impact. However, several comments that were received by the City brought into question the adequacy of the information contained in the Air Quality Section of the DEIR describing the public health impacts of conventional air pollutants, and the provision of mitigation measures to address those impacts. Comments were also received that highlighted potential inconsistencies between Project impacts and the SJVAPCD's Air Quality Management Plan (AQMP). Additional comments received by the City during the public review period brought into question the adequacy of the analysis of Greenhouse Gas (GHG) emissions generated by the project, the potential effects expected on global warming and the provision of mitigation measures to address project-related impacts.

For overall air quality the March 2008 DEIR concludes:

"Compliance with SJVAPCD regulations will assist in reducing the cumulative project impacts on air quality although impacts cannot be completely mitigated to less than significant. Additionally, the project land use has not been planned under the existing General Plan and is, therefore, inconsistent with the AQMP. As discussed above, the project will have an air quality impact that is significant and unavoidable."

The conclusion as stated above is no longer valid as it pertains to the proposed project. The City of Stockton adopted a new General Plan (2035) in December 2007, and the territory covered by the project is planned within the City's Land Use Element with an urban land use designation. The Air Quality Section presented in this document has been revised to reflect the recent adoption of the 2035 General Plan and subsequent consistency with the Air Quality 2007 Ozone Plan for the San Joaquin Valley. The Section also has been revised to include mitigation measures to reduce project-related air quality impacts.

The March 2008 DEIR Air Quality Section includes a sub-section that addresses project-related climate change. In the March 2008 document, the DEIR concludes that the project does not generate sufficient GHG emissions to create a significant impact. Specifically, the DEIR concludes:

"Construction of the proposed project could contribute to atmospheric greenhouse gas emissions resulting in a potentially significant impact. With the application of mitigation measures presented in Land Use, Air Quality, Transportation, and Public Services the impacts should be reduced to less than significant on global warming. In addition, implementation of the measures recommended by the California Attorney General will further reduce the project's contribution to greenhouse gas emissions."

The issues involving GHG Emissions are evolving as a science. At the time the March 2008 DEIR was circulated, information and the analysis contained in the document was presented to address the project impacts to the extent available at the time. This document includes new information, including a quantification of GHG Emissions from the project, an analysis and discussion of impacts and a list of mitigation measures to reduce project-related GHG Emissions; all leading to a clarification to the findings presented in the March 2008 DEIR with respect to the air quality section and specifically to global warming and climate change issues.

Since global warming/climate change is addressed as a subsection of air quality, it can be concluded that the project will mitigate global warming impacts to levels that are less than significant (as indicated above), but will have a cumulative impact that is significant and unavoidable (also as indicated above). Nevertheless, as a result of the blending of the air quality assessment with the global warming/climate change assessment, the project level findings and cumulative level findings require additional clarity. For this reason, this document presents a separate global warming/climate change section (Section 4.15), which was created to assist in distinguishing the project's effects from GHG emissions.

In accordance with CEQA Guidelines Section 15088.5, "Recirculation of an EIR Prior to Certification", the City has determined that based on the new information and change to the previous findings with respect to global warming issues, recirculation is appropriate. As allowed in subsection (2), when an EIR is revised in part and the lead agency is recirculating only the revised chapters or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters.

Overall, all other sections, discussions, analysis, etc., included in the March 2008 DEIR remain as presented in that document. Only the section involving Section 4.2 Air Quality has been amended/modified. With the reformatting of the EIR to provide a separate Global Climate Change section, Section 4.2 Air Quality has been revised to omit the global climate change discussion. The previously described Impact AIR-5 statement has been removed and the Air Quality Section reformatted and impact statements renumbered accordingly.

4.2 AIR QUALITY

An assessment of the project's air quality emissions/contributions was prepared for this EIR. Air quality modeling data is provided in Appendix E.

4.2.1 Existing Setting

The project site is located within the County of San Joaquin, which is part of the San Joaquin Valley Air Basin (SJVAB) and is under the jurisdiction of the SJVAPCD. The air quality assessment for the proposed project includes estimating emissions associated with short-term construction and long-term operation of the proposed project.

A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the SJVAPCD, have created guidelines and requirements to conduct air quality analyses. The methodologies provided by the SJVAPCD in its Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI, adopted August 20, 1998; revised January 10, 2002) and the Caltrans Transportation Project-Level Carbon Monoxide Protocol (December 1997) were adhered to in the assessment of air quality impacts for the proposed project.

Regional Air Quality

Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As shown in Table 4.2.A, these pollutants include ozone (O_3), CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to setting out primary and secondary AAQS, the State has established a set of episode criteria for O_3, CO, NO_2, SO_2, suspended particulate matter (PM_{10} and $PM_{2.5}$), and lead. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three. Table 4.2.B lists the health effects of these criteria pollutants and their potential sources. These health effects would not occur unless the standards are exceeded by a large margin or for a prolonged period of time. The State AAQS are more stringent than the federal AAQS.

The California Clean Air Act (CCAA) provides the air districts, such as SJVAPCD, with the authority to manage transportation activities at indirect sources. Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. Examples of this would be the motor vehicles at an intersection, a mall, and on highways. SJVAPCD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the California Air Resources Board (ARB).

Table 4.2.A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[2,5]	Secondary[2,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m)		0.08 ppm (157 µg/m³)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation*	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	20 µg/m³*		50 µg/m³		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		65 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	12 µg/m³*	Gravimetric or Beta Attenuation*	15 µg/m³		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m³)	Nondispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m³)	None	Nondispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	--	--
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	–	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m³)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.25 ppm (470 µg/m³)		–		
Lead	30-day average	1.5 µg/m³	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³	Same as Primary Standard	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	–	Ultraviolet Fluorescence	0.030 ppm (80 µg/m³)	–	Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (365 µg/m³)	–	
	3-Hour	–		–	0.5 ppm (1300 µg/m³)	
	1-Hour	0.25 ppm (655 µg/m³)		–	–	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more (0.07–30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography*			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Cloride[9]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: ARB, May 2005

*This concentration was approved by the ARB on April 28, 2005, and is expected to become effective in early 2006.

Footnotes:

[1] California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1 and 24 hour); nitrogen dioxide; suspended particulate matter, PM10; and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 ?g/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent procedure that can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] New federal eight-hour ozone and fine particulate matter standards were promulgated by EPA on July 18, 1997. Contact EPA for further clarification and current federal policies.

[9] The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Table 4.2.B: Public Health Impacts Summary of the Major Criteria Air Pollutants

POLLUTANTS	SOURCES	PRIMARY EFFECTS
Ozone (O_3)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Aggravation of respiratory and cardiovascular diseases. Irritation of eyes. Impairment of cardiopulmonary function. Plant leaf injury.
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust. High temperature stationary combustion. Atmospheric reactions.	Aggravation of respiratory illness. Reduced visibility. Reduced plant growth. Formation of acid rain.
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon containing substances, such as motor exhaust. Natural Events, such as decomposition of organic mater.	Reduced tolerance for exercise. Impairment of mental function. Impairment of fetal development. Death at high levels of exposure. Aggravation of some heart diseases (angina).
Suspended Particulate Mater (PM_{10} and $PM_{2.5}$)	Stationary combustion of solid fuels. Construction activities. Industrial processes.	Reduced lung function. Aggravation of the effects of gaseous pollutants. Aggravation of respiratory and cardiorespiratory diseases.

POLLUTANTS	SOURCES	PRIMARY EFFECTS
	Atmospheric chemical reactions.	Increased cough and chest discomfort. Soiling. Reduced visibility.
Sulfur Dioxide (SO_2)	Combustion of sulfur containing fossil fuels. Smelting of sulfur bearing metal ores. Industrial processes.	Aggravation of respiratory diseases (asthma, emphysema). Reduced lung function. Irritation of eyes. Reduced visibility. Plant injury. Deterioration of metals, textiles, leather, finishes, coatings, etc.
Lead (Pb)	Contaminated soil (e.g., from leaded fuels and lead-based paints).	Impairment of blood function and nerve construction. Behavioral and hearing problems in children.

Source: CARB 2001

Climate/Meteorology

Air pollution is directly related to a region's topographic features. The SJVAB is defined by the Sierra Nevada mountains in the east (8,000-14,000 feet in elevation), the Coast Range in the west (averaging 3,000 feet in elevation), and the Tehachapi Mountains in the south (6,000-8,000 feet in elevation). The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Strait, where the Sacramento-San Joaquin Delta empties into San Francisco Bay. Thus, the San Joaquin Valley (SJV) could be considered a "bowl" open only to the north.

Although marine air generally flows into the basin from the San Joaquin River delta, the region's topographic features restrict air movement through and out of the basin. The Coast Range hinders wind access into the SJV from the west, the Tehachapis prevent southerly passage of air, and the high Sierra Nevada range is a significant barrier to the east. These topographic features result in weak air flow, which becomes blocked vertically by high barometric pressure over the SJV. As a result, the SJVAB is susceptible to pollutant accumulation over time. Most of the surrounding mountains are above the normal height of summer inversion layers (1,500-3,000 feet).

During the summer, wind speed and direction data indicate that wind usually originates at the north end of the SJV and flows in a south-southeasterly direction through the SJV, through Tehachapi Pass, and into the Southeast Desert Air Basin. During the winter, wind speed and direction data indicate that wind occasionally originates in the south end of the SJV and flows in a north-northwesterly direction. Also during the winter months, the SJV experiences light, variable winds of less than 10 mph. Low wind speeds combined with low inversion layers in the winter create a climate conducive to high CO and PM_{10} concentrations.

The climatological station monitoring temperature closest to the project site is the Stockton station. The monthly average temperature recorded at the Stockton station for the last 40 years ranges from 45.6 degrees (F) in January to 77.3 degrees (F) in July. January is typically the coldest month in this

area. The Stockton monitoring station also records precipitation throughout the year. Average rainfall measured for the last 40 years varied from 2.85 inches in January to 0.73 inch or less between May and October, with an average annual total of 14.00 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Air Pollution Constituents and Attainment Status

Table 4.2.C describes the six criteria air pollutants and their attainment status in the Basin based on ARB's Area Designations (Activities and Maps) (http://www.arb.ca.gov/desig/desig.htm). ARB provided the Environmental Protection Agency (EPA) with California's recommendations for eight-hour ozone area designations on July 15, 2003. The recommendations and supporting data were an update to a report submitted to the EPA in July 2000. On December 3, 2003, the EPA published its proposed designations. EPA's proposal differs from the State's recommendations primarily on the appropriate boundaries for several nonattainment areas. ARB responded to the EPA's proposal on February 4, 2004. EPA finalized the eight-hour ozone designations in April 2004.

The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004 and issued the final designations on December 14, 2004.

Table 4.2.C: Attainment Status in the San Joaquin Area

Emissions	State	Federal
Ozone: 1-hour	Severe nonattainment	No Federal Standard (Revoked June 2005)
Ozone: 8-hour	Not Established	Serious Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Unclassified
NO_2	Attainment	Attainment/Unclassified
SO_2	Attainment	Unclassified
All others	Attainment/Unclassified	Attainment/Unclassified

Source: ARB, January 2006

Ozone

O_3 (smog) is formed by photochemical reactions between NOX and reactive organic gases (ROG) rather than being directly emitted. O_3 is a pungent, colorless gas typical of Southern California smog. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly,

and young children. O_3 levels peak during summer and early fall. The SJVAPCD requested an extreme (from severe) nonattainment designation for the federal one-hour ozone standard for the SJVAB. The EPA approved the redesignation of the federal ozone attainment status to extreme in April 2004. The approval of the redesignation reduces the emissions cap for major sources from 25 to 10 tons per year. However, it will push the attainment date from 2005 to 2010, thereby avoiding any penalty fees associated with a nonconforming status. Effective June 15, 2005, the EPA revoked in full the federal 1-hour ozone ambient air quality standard, including associated designations and classifications, in all areas except 14 early action compact areas that do not include the SJVAB.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. The San Joaquin area is designated as attainment/unclassified for federal CO standards and attainment for State CO standards.

Nitrogen Oxides

NO_2, a reddish brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_x. NO_x is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection. The entire Basin is designated as attainment/unclassified under federal standards and attainment under State standards.

Sulfur Dioxide

SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The San Joaquin area is designated as unclassified for federal CO standards and attainment for State SO_2 standards.

Lead

Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the bloodstream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The entire Basin is in attainment for federal and State lead standards.

Particulate Matter

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles, PM_{10}, derive from a variety of sources, including windblown dust and grinding

operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle, $PM_{2.5}$, levels. Fine particles can also be formed in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that $PM_{2.5}$ which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The entire Basin is a nonattainment area for federal and State PM_{10} and $PM_{2.5}$ standards.

Local Air Quality

The SJVAPCD, together with the ARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the site is the Stockton-Hazelton Station, and its air quality trends are representative of the ambient air quality in the project area. The pollutants monitored are CO, O_3, PM_{10}, $PM_{2.5}$, and NO_2.

The ambient air quality data in Tables 4.2.D and 4.2.E show that CO and NO_2 levels are well below relevant State and federal standards. $PM_{2.5}$ levels were consistently lower than standards. O_3 and PM_{10} levels occasionally exceeded State and federal standards during the last three years. Also shown in Table 4.2.E, SO_2 levels are not monitored in the San Joaquin Basin.

Table 4.2.D: Ambient Air Quality at Stockton-Hazelton Air Monitoring Station

	One-Hour Carbon Monoxide[1]		One-Hour Ozone		Coarse Suspended Particulate (PM_{10})		Nitrogen Dioxide	
	Max. 1-Hour Conc. (ppm)	Number of Days Exceeded	Max. 1-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m^3$)	Number of Days Exceeded	Max. Conc. (ppm)	Number of Days Exceeded
State Stds.	> 20 ppm/ 1 hr		> .09 ppm/1 hr		> 50 $\mu g/m^3$, 24 hrs		> .25 ppm/1 hr	
2005	2.6	0	0.1	3	61	2	0.09	0
2004	3.7	0	0.1	1	60	3	0.08	0
2003	5.8	0	0.1	3	90	3	0.09	0
Maximum	**5.8**		**0.1**		**90**		**0.09**	
Federal Stds.	> 35 ppm/1 hr		> .12 ppm/1 hr		> 150 $\mu g/m^3$, 24 hrs		0.053 ppm, annual average	
2005	2.6	0	0.1	NA	61	0	0.02	0

	One-Hour Carbon Monoxide[1]		One-Hour Ozone		Coarse Suspended Particulate (PM_{10})		Nitrogen Dioxide	
	Max. 1-Hour Conc. (ppm)	Number of Days Exceeded	Max. 1-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m^3$)	Number of Days Exceeded	Max. Conc. (ppm)	Number of Days Exceeded
2004	3.7	0	0.1	NA	60	0	0.02	0
2003	5.8	0	0.1	NA	90	0	0.02	0
Maximum	**5.8**		**0.1**		**90**		**0.02**	

Source: ARB and EPA 2003-2005
ppm = parts per million
NA = not applicable
Data taken from the EPA Web site; others taken from the ARB Web site.

Table 4.2.E: Ambient Air Quality at Stockton Hazelton Air Monitoring Station

	Eight-Hour Carbon Monoxide		Eight-Hour Ozone		Fine Suspended Particulate ($PM_{2.5}$)		Sulfur Dioxide	
	Max. 8-Hour Conc. (ppm)	Number of Days Exceeded	Max. 8-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m$)	Number of Days Exceeded	Max. Conc. (ppm)	Number of Days Exceeded
State Stds.	> 9.0 ppm/8 hrs		> .07 ppm/8 hrs		No State Standard		> .04 ppm/24 hrs	
2005	2.7	0	0.09	NA[1]	44	NA	ND[2]	ND
2004	2.5	0	0.08	NA	41	NA	ND	ND
2003	3.1	0	0.09		45	NA	ND	ND
Maximum	**3.1**		0.09		45		**ND**	
Federal Stds.	> 9.0 ppm/8 hrs		> .08 ppm/8 hrs		> 65 $\mu g/m^3$, 24 hrs		0.03 ppm, annual average	
2005	2.7	0	0.09	1	44	0	ND	ND
2004	2.5	0	0.08	0	41	0	ND	ND
2003	3.1	0	0.09	1	45	0	ND	ND
Maximum	**3.1**		0.09		45		**ND**	

Source: ARB and EPA 2003-2005
[1] NA = Not applicable; no State standard.
[2] ND = No data. Monitored data for SO_2 are not available.

4.2.2 Regulatory Settings

Federal Regulations/Standards

Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS) for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health.

Data collected at permanent monitoring stations are used by the EPA to classify regions as "attainment" or "nonattainment," depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas have additional restrictions as required by the EPA.

The San Joaquin Valley is a single air quality nonattainment area containing six metropolitan planning organizations (MPOs) and two rural transportation-planning agencies (TPAs) that conduct transportation planning activities within the Valley. The EPA has designated the San Joaquin Council of Governments (SJCG) as the MPO responsible for ensuring the area's compliance with the CAA.

The EPA established new national air quality standards for ground-level O_3 and $PM_{2.5}$ matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way the government sets air quality standards under the CAA. The court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The justices also rejected arguments that the EPA took lawmaking power from Congress when it set tougher standards for O_3 and particulate matter in 1997. Nevertheless, the court threw out the EPA's policy for implementing new O_3 rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004 and revoked the one-hour standard on June 15, 2005.

The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA issued final designations on December 14, 2004.

State Regulations/Standards

The State of California began to set California ambient air quality standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are also listed in Table 4.2.A.

Originally, there were no attainment deadlines for CAAQS. However, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all.

The attainment plans require a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The San Joaquin area of the SJVAB is currently classified as a nonattainment area for three criteria pollutants: ozone (O_3), suspended coarse particulates (PM_{10}), and suspended fine particulates ($PM_{2.5}$).

Regional Air Quality Planning Framework

The 1976 Lewis Air Quality Management Act established the SJVAPCD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

The ARB coordinates and oversees both State and federal air pollution control programs in California. It oversees activities of local air quality management agencies and is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. The ARB maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by the ARB to classify air basins as "attainment" or "nonattainment" with respect to each pollutant and to monitor progress in attaining air quality standards. The ARB has divided the State into 15 air basins. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

The California Clean Air Act (CCAA) provides the SJVAPCD with the authority to manage transportation activities at indirect sources and regulate stationary source emissions. Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. An example of this would be the motor vehicles at an intersection, a mall, and on highways. As a State agency, the ARB regulates motor vehicles and fuels for their emissions.

Regional Air Quality Management Plan (AQMP)

The SJVAPCD has adopted several attainment plans to achieve State and federal air quality standards to comply with CCAA and federal Clean Air Act Amendments (FCAAA) requirements. The SJVAPCD must continuously monitor its progress in implementing attainment plans and must periodically report to the ARB and the EPA. It must also periodically revise its attainment plans to reflect new conditions and requirements in accordance with schedules mandated by the CCAA and FCAAA.

The CCAA requires districts to adopt air quality attainment plans and to review and revise their plans to address deficiencies in interim measures of progress once every three years. The SJVAPCD's AQMP was adopted in 1991 and was most recently updated in 2001.

To meet FCAAA and CCAA requirements, the SJVAPCD has submitted numerous plans for attaining ozone, PM_{10}, and CO standards. The ozone plan projected attainment of the federal ozone standard by 1999, but did not achieve its goal. The SJVAPCD is in the process of preparing a draft ozone plan and has requested a redesignation of extreme nonattainment status for the federal one-hour ozone standard. The CO plan demonstrates that CO attainment has already been reached. The PM_{10} attainment plan sets forth the approach the SJVAPCD will use to attain the NAAQS for PM_{10}. The SJVAPCD Governing Board adopted a 2003 PM_{10} plan in June 2003 and forwarded it to the ARB. The ARB adopted the plan in June 2003 and forwarded it to the EPA. The EPA found the plan complete in August 2003 and finalized approval of the 2003 PM_{10} plan in April 2004.

4.2.3 Impact Significance Criteria

A project would normally be considered to have a significant effect on air quality if the project would conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standards or contribute substantially to an existing or projected air quality violation; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people (Guidelines for the implementation of the California Environmental Quality Act, Public Resources Code §15000-15387).

In addition to the federal and State AAQS, as listed in Table 4.2.A, there are annual emissions thresholds for operation of a proposed project in the SJVAB. The San Joaquin area of the SJVAB is administered by the SJVAPCD, and guidelines and emissions thresholds established by the SJVAPCD in its Guide for Assessing and Mitigating Air Quality Impacts (SJVAPCD, adopted August 1998 and revised January 10, 2002) are used in this analysis.

SJVAPCD also requires evaluation of cumulative air quality impacts. CEQA defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor, but collectively significant, projects. An adequate cumulative impact analysis considers a project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project being assessed.

Thresholds of Significance for Construction Emissions

A project's construction phase produces many types of emissions, but PM_{10} is the pollutant of greatest concern. Rather than provide a quantitative significance threshold for PM_{10}, the SJVAPCD has determined that a project's impacts will be less than significant if the project complies with certain mitigation measures. Accordingly, the SJVAPCD has determined that compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 4.2.F and 4.2.G

below (as appropriate, depending on the size and location of the project site) will constitute sufficient mitigation to reduce PM_{10} impacts to a level considered less than significant.

The control measures listed in Table 4.2.F (Regulation VIII Control Measures) are required for all construction sites by regulation. Table 4.2.G lists additional measures that may be required due to sheer project size or proximity of the project to sensitive receptors. Table 4.2.G also lists additional control measures (Optional Measures) that may be implemented if further emissions reductions are deemed necessary by the Lead Agency.

The SJVAPCD recognizes that the measures listed in Tables 4.2.F and 4.2.G focus on PM10 emissions from fugitive dust sources. It indicates that Lead Agencies seeking to reduce emissions from construction equipment exhaust should also consider the mitigation measures listed in Table 4.2.H. The SJVAPCD recognizes that these measures are difficult to implement due to poor availability of alternative fueled equipment and the challenge of monitoring these activities.

Table 4.2.F: Regulation VIII Control Measures for Construction Emissions of PM_{10}

REGULATION VIII CONTROL MEASURES. - THE FOLLOWING CONTROLS ARE REQUIRED TO BE IMPLEMENTED AT ALL CONSTRUCTION SITES (INCLUDES CHANGES EFFECTIVE MAY 15, 2002).
• All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
• All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
• All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
• When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
• All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
• Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
• Within urban areas, trackouts shall be immediately removed when they extend 50 or more feet from the site, and at the end of each workday.
• Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Source: SJVAPCD, 2002

Table 4.2.G: Enhanced and Additional Control Measures for Construction Emissions of PM_{10}

ENHANCED CONTROL MEASURES - THE FOLLOWING MEASURES SHOULD BE IMPLEMENTED AT CONSTRUCTION SITES WHEN REQUIRED TO MITIGATE SIGNIFICANT PM_{10} IMPACTS (NOTE, THESE MEASURES ARE TO BE IMPLEMENTED IN ADDITION TO REGULATION VIII REQUIREMENTS):
• Limit traffic speeds on unpaved roads to 15 mph; and
• Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
ADDITIONAL CONTROL MEASURES - THE FOLLOWING CONTROL MEASURES ARE STRONGLY ENCOURAGED AT CONSTRUCTION SITES THAT ARE LARGE IN AREA, LOCATED NEAR SENSITIVE RECEPTORS, OR WHICH FOR OTHER REASON WARRANT ADDITIONAL EMISSIONS REDUCTIONS:
• Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site;
• Install wind breaks at windward side(s) of construction areas;
• Suspend excavation and grading activity when winds exceed 20 mph; and*
• Limit area subject to excavation, grading, and other construction activity at any one time.

Source: *SJVAPCD, 2002*

*Notes: *Regardless of windspeed, an owner/operator must comply with Regulation VIII's 20 percent capacity limitation.*

Table 4.2.H: Construction Equipment Mitigation Measures

EMISSION SOURCE	MITIGATION MEASURES
Heavy duty equipment (scrapers, graders, trenchers, earth movers, etc.)	• Use of alternative fueled equipment or catalyst equipped diesel construction equipment. • Minimize idling time (e.g., 10 minutes maximum) • Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use • Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set) • Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways • Implement activity management (e.g., rescheduling activities to reduce short-term impacts)

Source: SJVAPCD 2002

Thresholds for Operational Emissions

The term "project operations" refers to the full range of activities that can or may generate pollutant emissions when the development is functioning in its intended use. Ozone precursor emissions from project operations should be compared to the following thresholds:

Ozone Precursor Thresholds

10 tons per year of ROG

10 tons per year of NO_X

Projects with operation related emissions that exceed any of the above listed emissions thresholds are considered significant.

Local Carbon Monoxide Concentrations Thresholds

California State one hour CO standard of 20.0 ppm

California State eight hour CO standard of 9.0 ppm

Projects that would result in CO concentrations exceeding the above standards are considered significant.

Odor Impacts Threshold

Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact.

Hazardous Air Pollutants (HAPs)

The definition of substantial pollutant concentrations varies for pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above. With regard to hazardous air pollutants, also known as toxic air contaminants (TAC), "substantial" is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level. If best-available control technology for toxics (T-BACT) has been applied, the individual cancer risk to the maximum exposed individual (MEI) must not exceed 10 in 1 million in order for an impact to be determined not to be significant.

Airborne impacts are also derived from materials considered to be a nuisance for which there may not be associated standards. Odors or the deposition of large-diameter dust particles outside of the PM10 size range would be included in this category. It is considered a significant impact for odors and large-diameter dust particles if the SJVAPCD nuisance (Rule 402) would be potentially violated.

The following limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard indices (HI) from project emissions of TACs have been established for the Basin:

MICR and Cancer Burden. MICR is the estimated probability of a potential MEI contracting cancer as a result of exposure to TACs over a period of 70 years for residential and 46 years for worker receptor locations. The MICR calculations include multipathway consideration, when applicable. Cancer Burden is the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1.0 x 10-6) resulting from exposure to TACs.

The cumulative increase in MICR that is the sum of the calculated MICR values for all TACs emitted from the project will not result in any of the following:

- An increased MICR greater than 10 in 1 million (1.0 x 10-5) at any receptor location (assumes the project will be constructed with T-BACT)
- A cancer burden greater than 0.5

Chronic HI. This is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multipathway considerations, when applicable.

- The cumulative increase in total chronic HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.

Acute HI. This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential MEI to its acute reference exposure level.

- The cumulative increase in total acute HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.
- Accidental Release/Acutely Hazardous Air Emissions

The determination of significance for potential impacts from accidental release of acutely hazardous air pollutants should be made in consultation with local administering agency of the Risk Management Preventive Program. The County health department, Office of Emergency Services, or local fire department is usually the administering agency.

Evaluating Cumulative Air Quality Impacts

The SJVAPCD recommends the following procedures to evaluate potential cumulative air quality impacts:

- Evaluate cumulative ozone impacts
- Evaluate cumulative PM_{10} impacts
- Evaluate cumulative CO impacts
- Evaluate cumulative hazardous air pollutant (HAP) impacts

4.2.4 Impacts And Mitigation Measures

Effects Determined to Be Less Than Significant

Impact AIR-1: The project is not expected to create objectionable odors.

Construction of the proposed project may expose the surrounding sensitive receptors to airborne particulates and fugitive dust, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). Temporary odor from diesel exhaust would be

expected during construction, however, no long term odor impacts are anticipated that would effect adjacent sensitive receptors or onsite residential uses.

A potential for odor impacts may be associated with the proposed industrial uses depending upon the ultimate use. The industrial uses are combined in one location and are sufficiently distant from sensitive receptors to create a long term odor impact. Therefore, no mitigation measures are proposed.

Impact AIR-2: The project is not expected to create long-term air quality impacts with localized effects.

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality effects would occur when emissions from vehicular traffic increase in local areas as a result of the proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentration, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Per EPA guidelines, the highest of the second-highest CO concentrations measured within the past three years were used as the background levels (see Table 4.2.I). At the Stockton-Hazelton Monitoring Station, the background concentrations are 4.9 ppm for the one-hour period and 3.0 ppm for the eight-hour period.

The highest CO concentrations would occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Based on the same traffic impact analysis used for the long-term regional analysis above, CO hot spot analyses were conducted for existing and cumulative conditions. The impact on local carbon monoxide levels was assessed with the ARB-approved CALINE4 air quality model, which allows microscale CO concentrations to be estimated along roadway corridors or near intersections. This model is designed to identify localized concentrations of carbon monoxide, often termed "hot spots." A brief discussion of input to the CALINE4 model follows. The analysis was performed for the worst-case wind angle and wind speed condition and is based upon the following assumptions:

- Selected modeling locations represent the intersections closest to the project site, with the highest project-related vehicle turning movements and the worst level of service deterioration.
- Twenty receptor locations with the possibility of extended outdoor exposure from 8 to 24 meters (approximately 26 to 79 feet) of the roadway centerline near intersections were modeled to determine CO concentrations.

- The calculations assume a meteorological condition of almost no wind (0.5 m/second), a suburban topographical condition between the source and receptor, and a mixing height of 1,000 m, representing a worst-case scenario for CO concentrations.
- CO concentrations are calculated for the one-hour averaging period and then compared to the one-hour standards. CO eight-hour averages are extrapolated using a persistence factor of 0.7 to predict the eight-hour concentration.
- Concentrations are given in parts per million (ppm) at each of the receptor locations.
- The "at-grade" link option with speed adjusted based on average cruise speed and number of vehicles per lane per hour was used rather than the "intersection" link selection in the CALINE4 model (Caltrans has suggested that the "intersection" link should not be used due to an inappropriate algorithm based on outdated vehicle distribution). Emissions factors from the EMFAC2002 model were used for the vehicle fleet.
- The highest level of the second-highest one-hour and eight-hour CO concentrations monitored at the Stockton-Hazelton Monitoring Station in the past three years were used as background concentrations (4.9 ppm for the one-hour CO and 3.0 ppm for the eight-hour CO). The "background" concentrations are then added to the model results for future with and without the proposed project conditions.

In order to determine the proposed project's impact on the local air quality, the CO levels were modeled at six intersections in the project area for the existing and future scenarios. These intersections are those that the project will have the most affect on traffic volumes. The CALINE4 model printouts are included in Appendix E. Table 4.2.I. lists the CO concentrations from existing (2006) traffic. None of the intersections currently have CO concentrations that exceed federal or State standards.

Table 4.2.J compares the CO concentrations from 2006 traffic with all approved operational projects in the vicinity of this project with CO concentrations from additional traffic related to the proposed project. Table 4.2.K compares CO concentrations without and with the project in 2035. As shown in Tables 4.2.J and 4.2.K, none of the six intersections analyzed would exceed either the one-hour or the eight-hour CO concentration federal and State standards. Table 4.2.J shows that in 2006, the proposed project would contribute at most a 2.0 ppm increase to the one-hour and a 1.4 ppm increase to the eight-hour CO concentrations at these intersections. Table 4.2.K shows that in 2035, the proposed project would contribute at most a 0.2 ppm increase to the one-hour and a 0.2 ppm increase to the eight-hour CO concentrations at these intersections. The proposed project would not have a significant impact on local air quality for CO, and no mitigation measures would be required.

Table 4.2.I: Existing (2006) CO Concentrations[1]

Intersection	Receptor Distance to Road Centerline (Meters)	Existing One-Hour CO Concentration (ppm)	Existing Eight-Hour CO Concentration (ppm)	Exceed State Standards?	
				1-HR	8-HR
Airport Way/Sperry Road	14	7	3.9	No	No
	14	6.9	3.9	No	No
	14	6.9	3.9	No	No
	14	6.9	3.9	No	No
Quantas Lane/Arch Airport Road	21	7	3.9	No	No
	19	6.9	3.9	No	No
	19	6.9	3.9	No	No
	12	6.8	3.8	No	No
Airport Way/Performance Drive	17	6.7	3.7	No	No
	17	6.7	3.7	No	No
	17	6.7	3.7	No	No
	15	6.7	3.7	No	No
Ash Street/French Camp Road	8	7	3.9	No	No
	8	6.9	3.9	No	No
	8	6.9	3.9	No	No
	8	6.9	3.9	No	No
Airport Way/French Camp Road	14	7.9	4.6	No	No
	14	7.9	4.6	No	No
	14	7.7	4.4	No	No
	14	7.6	4.4	No	No
French Camp Road/Sperry Road	24	5.8	3.1	No	No
	22	5.8	3.1	No	No
	22	5.8	3.1	No	No
	22	5.8	3.1	No	No

Source: LSA Associates, Inc., February 2006

[1] Includes ambient one-hour concentration of 4.9 ppm and ambient eight-hour concentration of 3.0 ppm, measured at the Stockton-Hazelton air quality monitoring station.

Table 4.2.J: 2006 Other Approved Projects Without and With Project CO Concentrations[1]

Intersection	Receptor Distance to Road Centerline (Meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceed State Standards?[2]	
					1-HR	8-HR
Airport Way/Sperry Road	14/21	0.9/0.7	6.1/7.0	3.8/4.5	No	No
	14/19	0.7/0.5	6.1/6.8	3.8/4.3	No	No
	14/17	0.7/0.5	6.0/6.7	3.8/4.3	No	No
	14/17	0.6/0.4	6.0/6.6	3.8/4.2	No	No
Quantas Lane/Arch Airport Road	21/21	0.8/0.6	6.1/6.9	3.8/4.4	No	No
	19/21	0.8/0.5	6.0/6.8	3.8/4.3	No	No
	19/21	0.8/0.5	6.0/6.8	3.8/4.3	No	No
	39069	0.8/0.6	5.9/6.7	3.7/4.3	No	No
Airport Way/Performance Drive	17/17	0.7/0.5	5.8/6.5	3.6/4.1	No	No
	17/17	0.6/0.5	5.8/6.4	3.6/4.1	No	No
	17/17	0.6/0.5	5.8/6.4	3.6/4.1	No	No
	15/15	0.6/0.5	5.8/6.4	3.6/4.1	No	No
Ash Street/French Camp Road	38945	2.0/1.4	6.1/8.1	3.8/5.2	No	No
	38942	1.5/1.0	6.0/7.5	3.8/4.8	No	No
	38942	1.5/1.0	6.0/7.5	3.8/4.8	No	No
	38942	1.4/1.0	6.0/7.4	3.8/4.8	No	No
Airport Way/French Camp Road	14/14	1.8/1.2	7.0/8.8	4.5/5.7	No	No
	14/14	1.5/1.0	7.0/8.5	4.5/5.5	No	No
	14/14	1.5/1.1	6.8/8.3	4.3/5.4	No	No
	14/14	1.5/1.0	6.7/8.2	4.3/5.3	No	No
French Camp Road/Sperry Road	24/24	0.0/0.0	4.9/4.9	3.0/3.0	No	No
	24/24	0.0/0.0	4.9/4.9	3.0/3.0	No	No
	22/22	0.0/0.0	4.9/4.9	3.0/3.0	No	No
	22/22	0.0/0.0	4.9/4.9	3.0/3.0	No	No

Source: LSA Associates, Inc., September 2006

1 Includes ambient one-hour concentration of 4.9 ppm and ambient eight-hour concentration of 3.0 ppm, measured at the Stockton-Hazelton air quality monitoring station.

2 The one-hour CO State standard is 20 ppm, and the eight-hour CO standard is 9 ppm.

Table 4.2.K: 2035 Without and With Project CO Concentrations[1]

Intersection	Receptor Distance to Road Centerline (Meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceed State Standards?[2]	
					1-HR	8-HR
Airport Way/Sperry Road	24/24	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	24/24	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	24/24	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	24/24	0.1/0.1	5.5/5.6	3.4/3.5	No	No
Quantas Lane/Arch Airport Road	28/28	0.2/0.2	5.5/5.7	3.4/3.6	No	No
	26/26	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	24/24	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	21/21	0.1/0.0	5.4/5.5	3.4/3.4	No	No
Airport Way/Performance Drive	24/24	0.0/0.0	5.4/5.4	3.4/3.4	No	No
	23/23	0.1/0.1	5.3/5.4	3.3/3.4	No	No
	17/17	0.1/0.1	5.3/5.4	3.3/3.4	No	No
	17/17	0.0/0.0	5.3/5.3	3.3/3.3	No	No
Ash Street/French Camp Road	21/21	0.2/0.1	5.3/5.5	3.3/3.4	No	No
	21/21	0.1/0.1	5.3/5.4	3.3/3.4	No	No
	20/20	0.1/0.1	5.3/5.4	3.3/3.4	No	No
	20/20	0.1/0.1	5.3/5.4	3.3/3.4	No	No
Airport Way/French Camp Road	26/28	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	24/26	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	22/24	0.2/0.1	5.4/5.6	3.4/3.5	No	No
	14/22	0.2/0.1	5.4/5.6	3.4/3.5	No	No
French Camp Road/Sperry Road	24/24	0.0/0.0	5.6/5.6	3.5/3.5	No	No
	24/24	0.1/0.1	5.5/5.6	3.4/3.5	No	No
	22/22	0.0/0.0	5.5/5.5	3.4/3.4	No	No
	22/22	0.0/0.0	5.5/5.5	3.4/3.4	No	No

Source: LSA Associates, Inc., September 2006

[1] Includes ambient one-hour concentration of 4.9 ppm and ambient eight-hour concentration of 3.0 ppm, measured at the Stockton-Hazelton air quality monitoring station.

[2] The one-hour CO State standard is 20 ppm, and the eight-hour CO standard is 9 ppm.

Impact AIR-3: The project is not expected to create hazardous air pollutant emissions.

Light industrial land uses are proposed within the project limits at a distance of approximately 600 feet from the proposed residential developments. The operations expected to occur within these facility will not emit any HAPs in any significant quantity other than diesel exhaust. While there will be other toxic substances in use on site, compliance with State and federal handling regulations will

bring emissions to below a level of significance. In addition to the proposed industrial facilities there is an existing Union Pacific Railroad track located adjacent to the proposed residential uses.

As the proposed project is currently in the planning stage the types of facilities to be located within the industrial areas are unknown. Therefore, the diesel health risk assessment was based on a large industrial facility that would generate up to 5,300 diesel truck trips per day. There is little rail activity on the rail line in the vicinity of the industrial uses. UPRR was contacted to determine the rail frequency usage on the rail lines within the project. According to UPRR representative Jim Smith, the rail line usage fluctuates and actual usage is not an indicator of potential conditions. Therefore, UPRR indicated that the worst case usage frequency should be used to assess health risks. To evaluate the worst case conditions it is estimated that up to 84 trains would pass in a one-week period, an average of 12 trains per day.

The ARB model, EMFAC2002, was used for emissions factors for trucks both idling and operating to determine the total emissions of diesel exhaust particulate from the project. Emissions factors in the EPA's Technical Highlights: Emission Factors for Locomotives (EPA420-F-97-051, December 1997) were used as a source of train engine emission rates. Refer to Appendix E for details of the analysis.

Carcinogenic and Chronic Project-Related Emissions Impacts. There would be long-term operational emissions from the diesel-powered trucks delivering and removing supplies and materials from the project site and diesel emissions from rail activities on the Union Pacific Railroad track. The primary health risk from heavy-duty truck and train emissions is diesel particulate exhaust. The results of the analysis are shown in Table N. Even with the conservative modeling technique used (concentrating all truck exhaust to emit from the center of the project area), the nearest residences to the would be exposed to an unmitigated inhalation cancer risk of no more than 1.6 in 1 million, less than the threshold of 10 in one million (see Table 4.2.L). The HI would be 0.002, less than the threshold of 1.0. No significant health risk would occur, and no mitigation is necessary.

Table 4.2.L: Project-Related Health Risk Assessment Results

	Cancer Risk (number in 1 million)	Chronic Hazard Index
Nearest Residences	1.6	0.005
Threshold	**10**	**1**

Source: LSA Associates, Inc., February 2006

Impact AIR-4: The project is not expected to create air pollutants that have short-term acute health effects.

No activity related to the project will emit any toxic air pollutants that have short-term acute health effects. There will be no machinery within to emit any toxic air pollutants that have short-term acute health effects. Therefore, the potential for short-term acute exposure to project-related toxic emissions will be less than significant.

In addition, the proposed project is not expected to result in any accidental release of acutely hazardous air emissions. Compliance with the City and SJVAPCD rules and regulations will ensure that no significant accidental release/acutely hazardous air emissions impacts will occur. No mitigation measures are recommended.

Impact AIR-5: The project is consistent with Air Quality Attainment Plan (AQAP).

A consistency analysis determination plays an essential role in local agency project review by linking local planning and unique individual projects to the AQAP in the following ways. It fulfills the CEQA goal of fully informing local agency decision makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information, assuring local decision makers that they are making real contributions to clean air goals defined in the most current AQAP.

An AQAP describes air pollution control strategies to be taken by counties or regions classified as nonattainment areas. Currently, the project region is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. The AQAP's main purpose is to bring the area into compliance with the requirements of federal and State air quality standards. Implementation of the proposed project would contribute to the delay of the attainment in the region.

Although the proposed project would have originally required an amendment to be consistent with the City's 1990 General Plan, the recently adopted 2035 General Plan includes the project site as an area designated as "Village". Since the City of Stockton General Plan has been considered in the preparation of the Air Quality 2007 Ozone Plan for the San Joaquin Valley, the project is considered to be consistent with the AQAP. Consequently, this impact is considered less than significant and no mitigation measures are required.

Potentially Significant Impacts

Impact AIR-6: The project could create short-term fugitive dust and exhaust-related impacts.

Air pollutant emissions associated with the project would occur over the short-term from construction activities, such as fugitive dust from site preparation and grading and emissions from equipment exhaust. The SJVAPCD's approach to CEQA analyses of PM_{10} impacts is to require implementation of effective and comprehensive control measures rather than detailed quantification of emissions. Because construction activities will incorporate all feasible mitigation measures, project-related construction emissions will be less than significant. Compliance with Regulation VIII and implementation of applicable control measures, indicated in Tables 4.2.F and 4.2.G, will reduce PM_{10} impacts to a level considered less than significant. No additional measures are recommended.

Mitigation Measure AIR-1a: The SJVAPCD Regulation VIII, Control Measures for Construction Emissions of PM10 (as shown in Tables 4.2.F, 4.2.G and 4.2.H), are required to be implemented at all construction sites. Compliance with the above Regulation VIII requirements would lessen the fugitive dust impact during construction to a level considered less than significant.

Mitigation Measure AIR-1b: Architectural coatings and asphalt paving conducted on site shall adhere to rules and regulations stated in the SJVAPCD Rulebook. Compliance with Rule 4601, Architectural Coatings, and Rule 4641, Asphalt Paving, would lessen impacts from architectural coatings and asphalt paving to a level considered less than significant.

The above mitigation measures will reduce construction impacts to the extent feasible and comply with SJVAPCD requirements for reducing construction equipment exhaust. However, the mitigation measures do not completely mitigate for the project's air quality impacts. The remaining impacts, discussed below, would be adverse and unavoidable.

Impact AIR-7: The project would create long-term exhaust related impacts.

Long-term air emissions impacts are those associated with project-related stationary and mobile sources. The proposed project, consisting of mixed-use (residential, commercial, and industrial) uses, is only a newly added part of a larger overall area development. Because the larger overall development was approved, this analysis only shows the incremental increase. The stationary source emissions from this land use would come from its consumption of natural gas and electricity. The traffic study prepared for this project (Fehr & Peers, August 2006) predicted vehicular trips associated with the proposed project that would contribute to the congestion at intersections and along roadway segments in the project vicinity. As indicated in the traffic analysis, the proposed project would generate a total of 49,430 daily vehicular trips. Using the ARB model URBEMIS2002 (version 8.7.0), emissions associated with project-related vehicular trips and stationary sources were calculated and are included in Table 4.2.M. As shown, the project's emissions would exceed the SJVAPCD annual emissions thresholds. Therefore, the proposed project's impact is ***significant***, and mitigation measures are required. The URBEMIS2002 (version 8.7.0) model run is included in Appendix E.

Table 4.2.M: Tidewater Crossing Project Operational Emissions

SOURCE	POLLUTANTS (TONS/YEAR)	
	ROC	NO_X
Proposed Emissions		
Stationary sources:	79.03	8.94
Vehicular traffic:	97.98	129.84
Proposed Subtotal	**177.02**	**138.78**
SJVAPCD Threshold	10	10
Exceeds Threshold?	Yes	Yes
Significant Impact?	Yes	Yes

Source: LSA Associates, Inc., September 2006.

Despite great progress in air quality improvement, approximately 146 million people nationwide lived in counties with pollution levels above the NAAQS in 2002. Out of the 230 nonattainment areas identified during the 1990 Clean Air Act Amendment designation process, 124 areas remain as

nonattainment today. In these nonattainment areas, however, the severity of air pollution episodes has decreased.

As shown in Table 4.2.B, long-term exposure to elevated levels of criteria pollutants could result in potential health effects. However, as stated in the Thresholds of Significance, emissions thresholds established by the air district are used to manage total regional emissions within an air basin based on the air basin attainment status for criteria pollutants. These emissions thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations that may affect or delay the projected attainment target year for certain criteria pollutants. This is a Master Development Plan project, much larger than an individual project, and has the potential to result in large emissions.

Due to the conservative nature of the thresholds and the basin wide context of an individual project's emissions, there is no direct correlation of a single project to localized health effects. One individual project having emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like ROG and NO_X.

Project Operations Related Impacts

The project would result in total (vehicular and stationary) daily emissions exceeding the annual emissions thresholds established by the SJVAPCD. No feasible mitigation measures would reduce the impacts to less than significant. However, the proposed project will be required to comply with Title 24 of the California Code of Regulations established by the Energy Commission regarding energy conservation standards. The project applicant shall incorporate the following in building plans:

1. Solar or low-emissions water heaters shall be used with combined space/water heater units.
2. Double-paned glass or window treatment for energy conservation shall be used in all exterior windows.
3. Buildings shall be oriented north/south where feasible.

Implementation of Mitigation Measures AIR-1a and AIR1b, as well as GCC-1 through GCC-7 will help to reduce the project's air quality impacts. Even with the implementation of these mitigation measures, this impact will remain significant and unavoidable.

Cumulative Impacts

The traffic study included vehicular trips from all present and future projects in the project vicinity. Therefore, CO hot spot concentrations calculated at these intersections include the cumulative traffic effect. Based on Tables 4.2.J and 4.2.K, no significant cumulative CO impacts would occur.

Cumulative Projects. Past development in the county and throughout the San Joaquin Valley has resulted, in combination with meteorological conditions and transport of pollutants from other air basins, in substantial to severe air quality problems in the San Joaquin Valley Air Basin (SJVAB). As above, San Joaquin County is in nonattainment for ozone and particulate matter 10 microns or less in

diameter (PM10). As a result, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has established a significance threshold of 10 tons per year (tpy) for oxides of nitrogen (NOX) and reactive organic gases (ROG), ozone precursors, during construction. For PM10, SJVAPCD requires implementation of effective and comprehensive control measures and compliance with applicable rules and regulations rather than detailed quantification of construction emissions. Construction of the project would contribute cumulatively to the local and regional air pollutants, together with other projects under construction. The project would result in significant operational air quality impacts. Thus, it is anticipated that these additional emissions would result in significant cumulative air quality impacts.

Construction Impacts. A number of individual projects in the City will be under construction simultaneously with the proposed project (a listing of planned and approved development projects in the City of Stockton is presented in Table 3.1.A). Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction may result in substantial short-term increases in air pollutants. However, all construction projects in the San Joaquin Valley are required to meet the requirements of Regulation VIII. The SJVAPCD has determined compliance with Regulation VIII reduces construction related air impacts to a less than significant level. Additionally, the SJVAPCD has included construction emissions as part of the Air Quality Attainment Plan. Therefore construction of this project and cumulative projects in the region would not impede the region's attainment of air quality standards.

Long-Term Operational Impacts. The incremental daily emission increase associated with project operational trip generation is identified in the above section for reactive organic gases (ROG) and nitrogen oxides (NO_x) (two precursors of ozone) and coarse particulate matter (PM_{10}). The SJVAPCD has established thresholds of significance for ozone precursors and fugitive dust of 10 pounds per day. The project regional emissions are based on the additional vehicle trips generated by the proposed project. The emissions associated with the project would be considered significant.

Long-term emissions from related projects, considered in light of the nonattainment status of the air basin, would be cumulatively significant. The proposed project would result in significant and unavoidable long-term regional (operational)-related air quality impacts and would exceed the SJVAPCD thresholds. It would, therefore, contribute considerably to the cumulative air quality impact. Related projects would contribute to a similar degree. Project-related air emissions, cumulative development air emissions, and air emissions from other reasonably foreseeable future projects in the SJVAB as a whole would continue to contribute to long-term increases in emissions that would exacerbate existing and projected nonattainment conditions. Thus, the proposed project would contribute considerably to a significant and unavoidable cumulative air quality impact. With respect to mitigation, the DEIR includes all available feasible mitigation to reduce the proposed project's contribution to cumulative air quality impacts. However, while mitigation measures would substantially reduce air emissions from the proposed project, they are not sufficient to reduce the proposed project's cumulative contribution to below a level that is not considerable. Therefore, the proposed project would contribute considerably to cumulatively significant and unavoidable air quality impacts associated with ROG and NO_X during long-term operation of the proposed project.

Toxic Air Contaminants. Given that compliance with applicable rules and regulations would be required for the control of stationary-source emissions of toxic air contaminants (TACs), both on- and off the site, the proposed project's contribution to long-term cumulative increases in stationary-source

TAC concentrations would be considered minor. Construction of proposed project would result in temporary, short-term diesel exhaust emissions from on-site heavy duty equipment. Construction of the proposed project would result in the generation of diesel particulate matter (PM) emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction-related activities. The use of mobilized equipment would be temporary and there are few sensitive receptors located immediately adjacent to the construction site.

Implementation of Mitigation Measures GCC-8 and GCC-9 will help to reduce vehicle miles traveled, and therefore reduce cumulative air quality impacts. Even with the implementation of this mitigation measure, this impact will remain significant and unavoidable.

4.2.5 Level Of Significance After Mitigation

Compliance with SJVAPCD regulations will assist in reducing the project level and cumulative project impacts on air quality although impacts cannot be completely mitigated to less than significant. Additionally, the project land use is found to be consistent with the recently adopted 2025 General Plan and is, therefore, also consistent with the Air Quality 2007 Ozone Plan. As discussed above, the project will have an air quality impact that is significant and unavoidable.

4.15 GLOBAL CLIMATE CHANGE

In June of 2008, the Office of Planning and Research (OPR) issued a technical advisory concerning CEQA and climate change. The technical advisory is provided by the OPR as a service to CEQA practitioners. OPR publishes technical guidance from time to time on issues that broadly affect the practice of CEQA and land use planning. The following section has been prepared in accordance with this technical advisory.

4.15.1 Existing Setting

Global climate change is happening not because of natural processes, or gradually over thousands of years. Rather, temperatures are rising quickly and dramatically, climbing with the concentrations of greenhouse pollutants that are released into the Earth's atmosphere. Global climate change is a result of human activities.

The effects of global climate change are already present - disappearing glaciers, shrinking snow pack, droughts, coastal erosion, bigger and more regular storms, and more extreme heat waves. Since 2006, eleven of the past twelve years are on the list of the twelve warmest years since reliable record keeping began in 1850. Arctic sea ice declined in 2006 by the largest amount ever, losing an area roughly the size of Texas and California combined.

Greenhouse gases (GHG), including carbon dioxide, methane, water vapor, nitrous oxide, and other atmospheric gases, play an important role in regulating the surface temperature of the Earth. The Earth's atmosphere acts like a greenhouse, warming the planet similar to a greenhouse warming the air inside its glass walls. GHGs allow light to penetrate, and prevent heat from escaping. GHGs are transparent to solar radiation and are effective in absorbing infrared radiation. As a result, radiation that otherwise would reflect back into space is retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

The increased consumption of fossil fuels (wood, coal, gasoline, etc.) has substantially increased atmospheric levels of greenhouse gases. As atmospheric concentrations of greenhouse gases rise, so do temperatures. Over time this rise in temperatures would result in climate change. Theories concerning climate change and global warming existed as early as the late 1800s. By the late 1900s that understanding of the earth's atmosphere had advanced to the point where many climate scientists began to accept that the earth's climate is changing. Many climate scientists agree that some warming has occurred over the past century and will continue through this century.

Common Greenhouse Gases:

Carbon dioxide (CO_2) is an odorless, colorless gas, which has both natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of carbon dioxide are from burning coal, oil, natural gas, and wood. Concentrations of carbon dioxide were 379 parts per million (ppm) in 2005, which is an increase of 1.4 ppm per year since 1960. In California, the most common GHG is CO_2, which constitutes approximately 84 percent of all GHG emissions. CO_2 emissions in California are mainly associated with in-state fossil fuel combustion and with fossil fuel combustion in out-of-state power plants

supplying electricity to California. Other activities that produce CO_2 emissions include mineral production, waste combustion, and land use changes that reduce vegetation.

Methane (CH_4) is a flammable gas and is the main component of natural gas. When one molecule of methane is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. There are no adverse health effects from methane. A natural source of methane is from the anaerobic decay of organic matter. Geologic deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.

Water vapor (H_2O) is the most abundant and important GHG. Water vapor maintains a climate necessary for life. The main sources of water vapor are evaporation, sublimation (change from solid to gas of ice and snow), and transpiration from plants.

Nitrous oxide (N_2O) is a colorless greenhouse gas produced by microbial processes in soil and water, including reactions in fertilizer containing nitrogen. Anthropogenic sources include vehicle emissions, fossil-fuel fired power plants, nylon production, nitric acid production, etc. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs for automobile air conditioners and refrigerants.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Aerosols can also affect cloud formation. Sulfate aerosols are emitted when fuel-containing sulfur is burned. Black carbon (or soot) is emitted during bio mass burning or incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest GWP of any gas evaluated, 23,900. Concentrations in the 1990s were about 4 ppt (EPA 2006). Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Individual GHGs have varying warming potentials and atmospheric lifetimes. The potential for a GHG to hold heat in the atmosphere is considered its global warming potential (GWP). Carbon Dioxide (CO_2) is the reference gas for measuring GWP. CO_2 has a GWP of one. Methane (CH_4) is a more potent GHG than CO_2. Each ton of CH_4 has 21 times the effect on global warming as one ton of CO_2. Therefore, CH_4 has a GWP of 21. Multiplying the GWP for each non-CO_2 GHG provides a standardized carbon dioxide equivalent (CO_2 e), which enables a project's combined global warming potential to be expressed. Table 4.15.A presents the GWPs and estimated lifetimes of common GHGs.

Table 4.15.A: Green House Gases Lifetimes

Greenhouse Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100 Year Time Horizon)
Carbon Dioxide (Co2)	50-200	1
Methane (Ch4)	12 ± 3	21
Nitrous Oxide (N2o)	120	310

Source: Intergovernmental Panel on Climate Change, 2001

Greenhouse gases in the atmosphere provide hospitable surface temperatures necessary to sustain life on earth. Human activities, however, such as the burning of fossil fuels, have contributed increasing concentrations of heat-trapping GHGs into the atmosphere. Over the past 200 years the global concentration of CO_2 has substantially increased, and it is widely accepted that anthropogenic sources of GHGs are contributing to global climate change.

The specific climatic mechanisms, duration, and severity of effects, however, are not fully understood. A variety of mechanisms and complex feedback loops interact to establish the average global temperature. A change in ocean temperature, for example, may alter circulating ocean currents, which may change ocean temperatures (as seen in el Niño and la Niña events).

According to the National Oceanic and Atmospheric Administration and the National Aeronautics and Space Administration, the Earth's average surface temperature has increased by about 1.2 to 1.4 Degrees Fahrenheit since 1900. The United Nations Intergovernmental Panel on Climate Change (IPCC) predicts that global mean temperature from 1990 to 2100 is expected to rise by 1.1°C to 6.4°C (IPCC 2007).

California is one of the largest contributors of GHGs in the U.S., and has been listed as the sixteenth largest emitter in the world. Transportation activities contribute about 40 percent of the state's total GHG emissions, and electricity generation, the second largest source in the state, contributes over 20 percent of our GHG emissions. Other sources of GHG emissions include manufacturing, agriculture, and other activities.

Worldwide, U.S. & California Emissions of GHG

In 2004, total worldwide GHG emissions were estimated to be 20,135 Tg CO_2 Eq., excluding emissions/removals caused by removal of vegetation and forestry. (Note that sinks, or GHG removal processes, plays an important role in the GHG inventory as forest and other vegetative land uses such as agriculture and rain forest absorb carbon).

In 2004, GHG emissions in the U.S. were 7,074.4 Tg CO2 Eq. In 2005, total U.S. GHG emissions were 7,260.4 Tg CO2 Eq., a 16.3 percent increase from 1990 emissions, while U.S. gross domestic product has increased by 55 percent over the same period. Emissions rose from 2004 to 2005, increasing by 0.8 percent. The main causes of the increase were: (1) strong economic growth in 2005, leading to increased demand for electricity; and (2) an increase in the demand for electricity due to warmer summer conditions. However, a decrease in demand for fuels due to warmer winter conditions and higher fuel prices moderated the increase in emissions.

California is a substantial contributor of GHG emissions as it is the second largest contributor in the U.S. and the sixteenth largest in the world. In 2004, California produced 492 Tg CO_2 Eq., which is approximately seven percent of the total nationwide GHG emissions. On the other hand, among the states, California has the fourth lowest per capita rate of GHG emissions, due to its temperate climate and to its enhanced energy regulations. The major source of GHG in California is transportation, contributing 41 percent of the State's total GHG emissions. Electricity generation is the second largest source, contributing 22 percent of the State's GHG emissions.

A study of California's greenhouse gas emissions from 1990 to 2004 concluded emissions from burning gasoline and jet fuel topped other sources, making up 40.7 percent of carbon dioxide pollution. Electricity generation accounted for 22.2 percent, industrial sources for 20.5 percent and agriculture and forestry for 8.3 percent. Other sources rounded out the equation at 8.3 percent. Carbon dioxide made up 84 percent of the state's total greenhouse gas emissions.

Effects of Global Climate Change in California

The impacts from global warming are widespread and potentially devastating. The impacts are immediate, and they will continue to grow. As stated in a report to the Governor in March 2006,

> Today's climate variability and weather extremes already pose significant risks to California's citizens, economy, and environment. They reveal the State's vulnerability and existing challenges in dealing with the vagaries of climate. Continued climate changes, and the risk of abrupt or surprising shifts in climate, will further challenge the state's ability to cope with climate-related stresses.

The Earth's average surface temperature will increase between 2.5° and 10.4°F (1.4°-5.8°C) between 1990 and 2100 if no major efforts are undertaken to reduce the emissions of greenhouse gases (the "business-as-usual" scenario). This is significantly higher than what the Intergovernmental Panel on Climate Change (IPCC) Panel predicted in 1995 (1.8°-6.3°F, or 1.0°-3.5°C), mostly because scientists expect a reduced cooling effect from tiny particles (aerosols) in the atmosphere, secondary impacts to the natural environmental in California may include:

a. **Eroding Coastlines:** Rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta. During the past century, sea levels along California's coast have risen about seven inches. If global warming emissions continue unabated, sea level is expected to rise an additional 22 to 35 inches by the end of the century, inundating coastal areas with salt water, accelerating coastal erosion, threatening vital levees and inland water systems,

and disrupting wetlands and natural habitats. In particular, saltwater intrusion would threaten the quality and reliability of the state's major fresh water supply that is pumped from the southern edge of the Sacramento/San Joaquin River Delta into the system of aqueducts which carry it to Southern California.

b. **Severe Heat:** Extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent. As temperatures rise from global warming, the frequency and severity of heat waves will grow—as will the potential for bad air days. The risk of illness and death due to dehydration, heart attack, and stroke, will increase as a result. Those most likely to suffer are children, the elderly, and other vulnerable populations.

c. **Air Quality:** An increase in heat-related human deaths, infectious diseases, and a higher risk of respiratory problems caused deteriorating air quality. Global warming increases the frequency, duration, and intensity of conditions conducive to the formation of smog. Most vulnerable are the elderly, those whose health is already compromised (such as children with asthma).

d. **Losses to the Sierra Snow Pack:** Reduced snowpack and stream flow in the Sierra Nevada Mountains, affecting winter recreation and water supplies. Higher temperatures diminish snowfall and cause the snow that does fall to melt earlier. This reduces the amount of water stored in the Sierra snow pack, which accounts for approximately half of the surface water stored in the State. Reductions and early melting of the snow pack will aggravate the State's already overstretched water resources and cause increased flooding.

e. **Severity of Storms:** Potential increase in the severity of winter storms, which can affecting peak stream flows and increase flooding along waterways and low line area. These heavy runoffs of remove natural minerals which are important to local ecosystems. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

f. **Damage to Agriculture:** Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield. By reducing the State's natural water storage capacity, raising temperatures, increasing salt water intrusion in agricultural regions, causing flooding, and increasing the risk of pest infestations and other calamities, global warming poses a serious threat to California's $68 billion agricultural industry. In fact, during the period 1951 to 2000, the growing season lengthened by about a day per decade, this increased crops' exposure to heat ("degree days"). Such changes threaten many of the State's most valuable crops, including stone fruits, grapes, tomatoes and lettuce. Global warming also threatens livestock. The 2006 summer heat wave killed thousands of dairy cows in California's Central Valley and caused a decrease in milk production in surviving animals.

g. **Habitat Modification and Destruction:** Changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, change in hydrologic cycles, and other climate-related effects. While it is difficult to generalize what impacts the changing climate has on the State's varied ecosystems, it already is clear that rising temperatures, altered water supplies, and other environmental variations make some habitats less hospitable for sensitive plants and animals. For example, some local populations of the threatened checkerspot butterfly already have disappeared due to changes in the weather (Stanford Report, May 14, 2004). A similar fate could await other species, such as trout and salmon, which favor cold water and are extremely sensitive to slight changes in temperature. Further, marine algae blooms, associated in part with increases in ocean temperatures, have

proliferated in the past eight years and may help explain the alarming increase in beachings and mass die-offs of whales, dolphins, and other ocean mammals that the federal government has documented over the last quarter century. In California alone, more than 14,000 seals, sea lions and dolphins have landed sick or dead along the shoreline in the last decade.

h. **Higher Risk of Wildfires:** Pest infestation and increasing temperatures make forests more vulnerable to fires. Wildfires are a major environmental hazard that have historically cost California more than $800 million each year and contribute to "bad air days" throughout the state. As global warming accelerates, so will these wildfires, and the damage to health and property that they cause. By century's end, the State may have as many as 55 percent more large wildfires.

i. **Increase Demand for Electricity:** Rising temperatures lead to increased demand for electricity and pressure on the State's supply system. During the summer of 2006 heat wave, power usage in Los Angeles rose so dramatically, that it caught power officials completely off guard.

j. **Financial Cost to Californians:** Apart from the potentially devastating impacts that climate change will have on California's natural resources, public health, and its economy, global warning already places a tremendous strain on the State finances. The State must pay for programs to re-build levees that protect agricultural lands against salt water infiltration; to study and respond to the impacts of a reduced Sierra snow pack on California's water supply; to protect wildlife and habitats from climate-related degradation; to respond to coastal erosion; to prepare for the increased risk of wildfires; to respond to the increased health risks associated with rising temperatures and declining air quality, and more.

These changes in California's climate and ecosystems are occurring at a time when California's population is expected to increase from 34 million to 59 million by the year 2040 (California Energy Commission 2005). As such, the numbers of people potentially affected by climate change as well as the amount of anthropogenic GHG emissions expected under a "business as usual" scenario are expected to increase. Similar changes as those noted above for California would also occur in other parts of the world with regional variations in resources affected and vulnerability to adverse side effects.

State-wide temperature increases due to fossil-fuel consumption are correlated to the severity of the natural environmental impacts as noted in Table 4.15.B.

4.15.2 Regulatory Setting

A variety of governmental agencies have initiated programs directed towards the regulatory environment. These include the United Nations Agreements, and recent California State Legislation and regulations that specifically address greenhouse gas emissions and global climate change. At the time of writing, there are no known applicable regulations setting ambient air quality emissions standards for greenhouse gases.

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for

Table 4.15.B: Climate Change Scenarios for California

IPCC Emissions Scenarios	Summary of Projected Global Warming Impacts (2070-2099, as compared to 1961-1990)	State-wide Temperature Rise
Higher Emissions: Rapid, fossil-fuel intensive growth	• 90% loss in Sierra snow pack • 22-30 inches of sea level rise • 3-4 times as many heatwave days in major urban centers • 2.5 times the number critically dry years • 4-6 times as many heat-related deaths in major urban centers • 20% increase in electricity demand • Increase in days meteorologically conducive to ozone formation	Higher Warming Range: 8-10.4 °F
Medium-High Emissions: Primarily fossil-fuel dependent growth with some green technology	• 70- 80 % loss in Sierra snow pack • 14-22 inches of sea level rise • 2.5-4 times as many heatwave days in major urban centers • 2-6 times as many heat-related deaths for major urban centers • 75-85% increase in days meteorologically conducive to ozone formation • 2-2.5 times the number critically dry years • 11% increase in electricity demand • 30% decrease in forest yields (pine) • 55% increase in the expected risk of large wildfires	Medium Warming Range: 5.5-7.9 °F
Lower Emissions: Shift to service & information economy with lots of green technology	• 30-60 % loss in Sierra snow pack • 6-14 inches of sea level rise • 2-2.5 times as many heatwave days in major urban centers • 2-3 times as many heat-related deaths for major urban centers • 25-35% increase in days meteorologically conducive to ozone formation • Up to 1-1.5 times the number critically dry years • 3-6 % increase in electricity demand • 7-14% decrease in forest yields (pine) • 10-35% increase in the risk of large wildfires	Lower Warming Range: 3.0-5.4 °F

Source: Cayan, D., Luers, A., Hanemann, M., Franco, G. and Croes, B. 2006.

Residential and Nonresidential Buildings, were established in 1978 and are updated periodically to allow incorporation of new energy efficiency technologies and methods. The latest amendments require new homes to use half the energy they used a decade ago. Electricity production by fossil fuels results in GHG emissions. Energy efficient buildings require less electricity. Increased energy efficiency, therefore, results in decreased greenhouse gas emissions.

Assembly Bill 1493: In 2002, Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that the California Air Resources Board (ARB) develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

Executive Order S-3-05: Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. The order declares that increased temperatures could reduce the Sierra's snow pack, further exacerbating California air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050.

The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary will also submit biannual reports to the governor and state legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Act Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32, The California Climate Solutions Act of 2006: In September 2006, the Global Warming Solutions Act of 2006 (AB 32) was signed into law by Governor Arnold Schwarzenegger. It was the first legislation cutting global warming pollution in the United States. AB 32 requires that statewide greenhouse gas emissions are reduced to 1990 levels by the year 2020, this result in roughly a 25% reduction under business as usual estimates. This reduction will be accomplished through an enforceable statewide cap on greenhouse gas emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide greenhouse gas emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address greenhouse gas emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle greenhouse gas emissions under the authorization of AB 32.

AB 32 requires that the California Air Resources Board (CARB) adopt a quantified cap on greenhouse emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in greenhouse gas emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically

efficient manner and conditions to ensure that businesses and consumers are not unfairly affect by the reductions.

Senate Bill 1368: SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard for base load generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) has recently established a similar standard for local publicly owned utilities.

These standards cannot exceed the greenhouse gas emission rate from a base load combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

4.15.3 Impact Significance Criteria

California has not adopted thresholds of significance for GHG emissions. As noted above, California has established a goal of reducing statewide GHG emissions to below 1990 levels. The climate theories, methodologies and threshold discussions are evolving at a rapid pace with new ideas constantly emerging with respect to global climate change as acknowledged by the Attorney General's office and the scientific community. Disagreements among professionals and the governmental institutions continue to dominate current events lending to the uncertainty for accurately forecasting the potential changes due to any individual project, decision or circumstance. Nevertheless, it is generally agreed that the application of mitigation measures directed towards reducing air quality degradation, energy savings and reduction on the dependency of vehicular usage will lessen the contribution of greenhouse gas emissions and ultimately slow down the consequences associated with global climate changes.

This EIR considers the GHG emissions from the project significant, or "cumulatively considerable," if implementation of the project would:

GCC-a: Substantially increase the total contribution of GHG emissions above current levels.

4.15.4 Impacts and Mitigation Measures

Impact GCC-1: GHG emissions associated with the implementation of the project could result in direct, indirect, and other project-related GHG emission that could substantially increase the total contribution of GHG emissions above current levels.

An analysis of the Tidewater Crossing's three most important GHG emissions (CO_2, CH_4, and N_2O) is presented below. The emissions of the individual gases were estimated and then converted to their CO_2 equivalents (CO_2e) using the individually determined global warming potential (GWP) of each gas. Thus, total GHG emissions = total CO_2 emissions + total CO_2e emissions form CH_4 and N_2O.

Implementation of the proposed Tidewater Crossing Master Development Plan would generate greenhouse gases through the construction and operation of new residential, commercial, and recreational uses. GHG emissions from the project would specifically arise from project construction and from sources associated with project operation, including direct sources such as motor vehicles, natural gas consumption, solid waste handling/treatment, and indirect sources such as electricity generation.

Average annual uses of electricity and natural gas for residential, industrial, and commercial land uses combined with vehicle trips per day are estimated for the proposed project in Table 4.15.C. Also shown in Table 4.15.C are the estimated project-related greenhouse gas emissions.

Table 4.15.C: Project Specific Analysis

Project Parameters	
	2009
Vehicles (trips/day)	45,930
Electricity used (MWh/year)	70,118
Natural Gas burned (cf/day)	629,000

	Emissions (tons per year)				%
Emission Source	**CO_2**	**CH_4**	**N_2O**	**CO_2e[1]**	
Vehicles	61,400	23.81	6.6	63,900	64%
Electricity Production	21,390	0.2349	0.1297	21,440	22%
Natural Gas Combustion	13,780	0.264	0.25	13,860	14%
Total Annual Emissions	96,600	24.31	6.98	99,200	100%

Based on the above emissions, the total CO_2e are calculated below and are expressed in metric tonne per year (Tg).

Emission Source	**Total CO_2e (Tg per year)**
Vehicles	0.0580
Electricity Production	0.0194
Natural Gas Combustion	0.0126
Total (CO_2e)	0.0900

1.1025	tons/metric tonne
1,000,000	metric tonne/Tg

Area GHG Usage			Year of data
State	492	Tg/year	2004

[1] CO_2e represents total emissions (equivalent) inclusive of a conversion factor for the Global Warming Potential.

Global warming potentials (GWPs) are used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPs are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO_2, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO_2. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various GHGs into a uniform measure denominated in carbon or CO_2 equivalents.

The generally accepted authority on GWPs is the Intergovernmental Panel on Climate Change (IPCC). In 2001, the IPCC updated its estimates of GWPs for key GHGs. The table below lists the GWPs to calculate carbon dioxide equivalents (CO_2e.)

Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Construction GHG Emissions

The project would emit greenhouse gases during construction of the project from the operation of construction equipment and from worker and building supply vendor vehicles. Because the specific size, location, and construction techniques and scheduling that will be utilized for development occurring within the project site is not currently known, the provision of precise emission estimates for development is not currently feasible and would require the City to speculate regarding future projects' potential environmental impacts. As such, the City is not required to engage in such speculation (CEQA Guidelines, Section 15145).

Operational GHG Emissions

The Tidewater Crossing Master Development Plan would generate GHG during its operation, principally from motor vehicle use, electricity and natural gas consumption, and solid waste disposal.

Motor Vehicle GHG Emissions: The largest source of GHG emissions associated with the proposed project would be on-and-off site motor vehicle use. CO_2 emissions, the primary greenhouse gas from mobile sources, are directly related to the quantity of fuel consumed. Two important determinants of transportation-related GHG emissions are vehicle miles traveled (VMT) and vehicle fuel efficiency. VMT in the California region has steadily increased over the last quarter-century.

However, while gross incremental global warming impacts related to vehicle or energy usage associated with a project can be quantified, gross calculations result in over counting of emissions because they do not take into account the fact that these emissions are not "new" in a global sense, even if they are newly attributable to a particular project. For example, to determine the increment of change in GHG emissions that is a result of a proposed project's vehicle trips, it would not be sufficient or accurate simply to quantify GHG emissions based on vehicle miles traveled, unless those vehicle miles can be compared to the vehicle miles that are already being traveled by persons who may move to an area that is proposed to be developed. There is not yet any methodology for determining the increment of change that should be attributed to a project, which might result in some drivers relocating from other areas. Further, these calculations are "today's current numbers" in that they do not take into account anticipated regulatory changes in vehicle efficiency standards which will reduce per vehicle GHG emissions over time.

CO_2 emissions during operation of the project at buildout were estimated using URBEMIS2007. Total CO_2 emissions related to the operation of motor vehicles would be 61,400 tons per year. Combustion of fossil fuels also generates CH_4 and N_2O.

In total, the proposed project would be anticipated to increase greenhouse gas emissions (CO_2e) attributable to mobile sources by 63,900 tons per year. Although motor vehicle energy consumption would increase under the proposed project, the transportation demand management plan and traffic improvements proposed for the project are designed to the improve energy efficiency of the transportation system by increasing use of more fuel-efficient public transit, carpools, and vanpools, and improving circulation system levels of service. Any reductions in traffic congestion realized through implementation of enhanced transit operations would also allow for more energy-efficient vehicular travel.

As an example of the effect of density and mixed use development on vehicle usage efficiency, researchers have determined that the most significant factor in determining travel and transportation outcomes is density. Controlling for other factors, the difference below low and high density metropolitan areas is more than 40 percent daily per capita VMT. Doubling of neighborhood density can be expected to result in approximately 15 percent reduction in both vehicle trips and VMT per capita. (See, 13 Ewing R. and R. Cervero, "Travel and the Built Environment," Transportation Research Record, Vo. 1780, pp. 87-114, 2001, cited in California Energy Commission, The Role of Land Use in Meeting California's Energy and Climate Change Goals, Final Staff Report, August 2007, CEC-600-2007-008-SF.) In sum, overall VMT decline as accessibility, density, and/or land-use mixing increase.

Included in the proposed project Master Development Plan are locations for two school sites. Of these sites, one is proposed as an elementary school, and is located in an area surrounded by residential and local park uses. It is anticipated that this school would be developed prior to the completion of Phase 4, dependent upon market demands. The other school would be developed as necessary to serve school district needs, and would be developed if and when the need arises within the district.

Electricity and Natural Gas GHG Emissions: The proposed project would use electricity for its residential, school, park and other components, which would contribute to GHG emissions. The generation of electricity through the combustion of fossil fuels typically yields CO_2 and, to a much smaller extent, CH_4 and N_2O. CO_2 emissions during operation of the project at buildout were estimated using URBEMIS2007. Total CO_2 emissions related to electricity and natural gas is 35,170 tons per year.

Solid Waste GHG Emissions: The Tidewater Crossing Master Development Plan includes a school, parks and residential homes. Solid waste generated by the project would contribute to State's GHG emissions. Treatment and disposal of municipal, industrial and other solid waste produces significant amounts of CH_4. In addition to CH_4, solid waste disposal sites also produce biogenic CO_2 and non-methane volatile organic compounds (NMVOCs) as well as smaller amounts of N_2O, nitrogen oxides (NO_x) and carbon monoxide (CO). CH_4 produced at solid waste sites contributes approximately 3 to 4 percent to the annual global anthropogenic GHG emissions (IPCC, 2001).

Waste management practices in California have changed significantly over the last decade. State mandated waste minimization and recycling/reuse policies have been introduced to reduce the amount of waste disposed of in landfills, and alternative waste management practices to solid waste disposal on land have been implemented to reduce the environmental impacts of waste management. Landfill gas recovery has become more common as a measure to reduce CH_4 emissions from solid waste disposal sites.

Other Greenhouse Gas Emissions: At present, there is a federal ban on CFCs; therefore, it is assumed the project will not generate emissions of CFCs. The project may emit a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants to be used in the project and the capacity of these are unknown at this time. PFCs and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would contribute significant emissions of these additional greenhouse gases.

Project Findings

Based on project-related greenhouse gas emissions estimates, it is anticipated that the project emissions will contribute to the global inventory of greenhouse gas emissions. The quantitative analysis above indicates that the project's greenhouse gas emissions would not be considered substantial.

The design concept for the Tidewater Crossing Master Development Plan is based upon a set of guiding principles that are intended to result in successful residential neighborhoods and communities. These principles balance the requirements for vehicular access with pedestrian access, density with open space, and facilities with community needs. A well balanced land development plan ultimately reduces vehicular dependency, conserves energy, and reduces project emissions

ultimately contributing less or even reversing long-term climate changes and the consequences of global warming.

The issue of global climate change has become increasingly important in the CEQA process. As a result, the City of Stockton, recognizing the significant issue of global climate change and greenhouse gas emissions, has encouraged the development industry to consider implementing new programs such as the Build It Green program. Therefore, the City and the applicant have agreed that additional design features to further reduce the project's greenhouse gas emissions are appropriate.

To further ensure that the proposed development minimizes its contribution to global warming/climate change, the following applicable mitigation measures will be implemented:

Build It Green Program

Mitigation Measure GCC-1. The owners, developers and/or successors-in-interest (ODS) shall be subject to and comply with the City's adopted "Build It Green" Program, green point rated guidelines in effect at the time of construction. In the absence of a City adopted program, the ODS shall adhere to the guidelines of the California Green Builder Program, which is recognized by the California Energy Commission. Accordingly, the ODS shall adhere to the following standards:

a. Utilize building insulation that exceeds Title 24 standards. Utilize high-performance windows that employ advanced technologies, such as protective coatings and improved frames, to retain heat in during winter and prevent heat during summer.

b. Incorporate building techniques that ensure tight building construction and efficient duct systems. Require the use of efficient heating and cooling equipment for all residential. Commercial and industrial buildings.

c. Utilize efficient building products with standards the meet *EnergyStar*™ criteria. *EnergyStar*™ qualified homes may also be equipped with *EnergyStar*™ qualified products- lighting fixtures, compact fluorescent bulbs, ventilation fans, and appliances, such as refrigerators, dishwashers, and washing machines.

d. Require the use of reflective, *EnergyStar*™ cool roofs on all building structures in the project.

e. All commercial/industrial building structures within the project will comply with LEED-certified standards in effect at the time of construction. The ODS will not be required to participate in the formal LEED inspection and certification process, but will be required to demonstrate to the City the ability to be certified to LEED standards.

Emission Reduction/Air Quality

Mitigation Measure GCC-2. The owner, developer, and/or successor-in-interest (ODS) shall address the impacts from project-relate emissions through the implementation of the following measures:

a. File an application for each proposed tentative subdivision map or other final entitlements to the San Joaquin Valley Air Pollution Control District (APCD) for a permit pursuant to Rule 9510

indirect Source Rule (ISR), if applicable. The ODS shall incorporate emission reduction measures into the project and pay ISR fees as required by the APCD.

b. Prohibit wood-burning fireplaces and wood stoves within the project.

c. Impose restrictions in commercial and industrial parking areas and loading/access zones that limit idling time for commercial vehicles, including delivery and construction vehicles.

Land Use

Mitigation Measure GCC-3. The owner, developer and/or successors-in-interest are required to implement the following measures regarding land use to reduce greenhouse gas emission impacts for the proposed project.

a. Locate truck-oriented delivery/service facilities (e.g., loading docks, trash enclosures), where the potential exists for vehicles to emit Toxic Air Emissions, as far away as feasibly possible from sensitive receptors by placing buildings or other obstructions between the source of the emission and normally downwind receptors.

b. Provide sidewalks and pedestrian paths throughout as much of the project as possible and connect to open space areas, parks, schools, and commercial areas to encourage walking and bicycling.

c. Mid-block paths shall be installed to facilitate pedestrian movement through long blocks and cul-de-sacs.

d. To the extent practicable, the comprehensive the bicycle circulation system shall provide access to all neighborhoods and amenities within the proposed project and enhances comfort and safety for pedestrians by offering ample lighting, planted medians, tree lined streets, crosswalks and wide sidewalks.

Public Infrastructure/Services

Mitigation Measure GCC-4. The owner, developer and/or successors-in-interest are required to implement the following measures regarding public services to reduce greenhouse gas emission impacts for the proposed project.

a. Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (electric vehicle charging facilities and conveniently located alternative fueling stations) in the industrial uses.

b. A non-potable source of water (e.g., reclaimed) shall be utilized for landscape irrigation in public spaces.

Building Construction & Energy Conservation

Mitigation Measure GCC-5. The following measures shall be used singularly or in combination to accomplish an overall reduction in residential energy consumption relative to the requirements of State of California Title 24:

a. Energy-efficient design shall be provided for homes and buildings, including automated control systems for heating and air conditioning, lighting controls and energy-efficient lighting in buildings, increased insulation, and light-colored roof materials to reflect heat.

b. Residences shall be constructed with energy efficient appliances and home systems such as Energy Star appliances, energy efficient (i.e., Low E2) windows, tightly sealed ducts, florescent or energy efficient light bulbs with motion sensors where practicable, backyard outlets for electrical mower and other yard equipment operations, R-6 duct insulation, radiant roof barrier sheathing, 14 Seasonal Energy Efficiency Ratio air conditioning and ventilation systems, air conditioning with Thermostatic Expansion Valve metering devices that help regulate flow of liquid refrigerant, 0.95 Annual Fuel Utilization Efficiency furnaces, and gas dryer stubs.

c. Buildings and outdoor structures shall include green-building materials, such as low-emission concrete, recycled aggregate, recycled reinforcing, or waffle pods to be used in foundations; recycled plastics to be used in community structures such as fencing or playground equipment; wood flooring materials treated with low emission varnishes and floor board substrates to be made from low emission particleboard; compact fluorescent light bulbs in all buildings; and use of recycled building materials such as recycled aluminum for window frames or post-consumer plastic for piping.

d. Contractors shall minimize and recycle construction-related waste.

e. Include energy-conserving features as options for home buyer/commercial or industrial tenant. These include:

   - increased energy efficiency;
   - increased wall and ceiling insulation (beyond building code requirements);
   - energy-efficient windows (double-paned or Low-E);
   - high-albedo (reflecting) roofing materials;
   - cool paving;
   - radiant heat barriers;
   - energy-efficient lighting, appliances, and heating and cooling systems;
   - installation of solar water-heating systems;
   - provide low NOx-emitting or high-efficiency, energy-efficient water heaters;
   - installation of clean-energy features that promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems);
   - installation of programmable thermostats for all heating and cooling systems;
   - awnings or other shading mechanisms for windows;
   - porch, patio, and walkway overhangs;
   - ceiling fans or whole-house fans;
   - passive solar cooling and heating designs (e.g., natural convection, thermal flywheels);
   - daylighting (natural lighting) systems such as skylights, light shelves, and interior transom windows;

- electrical outlets around the exterior of units to encourage the use of electric landscape maintenance equipment;
- bicycle parking facilities for patrons and employees in covered secure areas (shall be conveniently located at each destination point);
- use of low and no-VOC coatings and paints;
- natural gas fireplaces (instead of wood burning fireplaces or heathers) and natural gas lines (if available to the project area) in backyard or patio areas to encourage the use of gas barbecues;
- on-site employee cafeterias or eating areas;
- pre-wire units with high-speed modem connections/DSL and extra phone lines;
- employee shower and locker areas for bicycle and pedestrian commuters; and
- use of low or nonpolluting landscape maintenance equipment (e.g., electric lawn mowers, reel mowers, leaf vacuums, electric trimmers and edgers).

f. Use locally made building materials for construction of the project and associated infrastructure to reduce truck trips.

g. Large canopy trees shall be carefully selected and located to protect buildings from energy-consuming environmental conditions and shade-paved areas. Trees shall be selected to shade 50% of paved areas within 15 years.

h. Optimize building's thermal distribution by separating ventilation and thermal conditioning systems.

i. For pool heating and maintenance, use solar heating, automatic covers, and efficient pumps and motors for pools and spas.

j. Design buildings to accommodate solar power systems; solar panels on homes, commercial building, carports and over parking areas; solar and tankless hot water heaters; and energy-efficient heating ventilation and air conditioning.

k. The principles of passive solar design shall be incorporated into building structures, including basic design principles are large south-facing windows with proper overhangs, as well as tile, brick, or other thermal mass material used in flooring or walls to store the sun's heat during the day and release it back into the building at night or when the temperature drops.

Water Conservation

Mitigation Measure GCC-6: The owner, developer and/or successors-in-interest are required to prepare a water conservation plan for the proposed project to the satisfaction of the Director of Municipal Utilities. The plan shall address of the following, as appropriate:

a. Water-efficient landscapes shall be provided for all publicly landscaped areas, including parks, roadway medians and roadside landscaping.

b. Water-efficient irrigation systems and devices shall be required in all landscaped areas.

c. All building shall include water-efficient fixtures and appliances.

Solid Waste

Mitigation Measure GCC-7: The owner, developer and/or successors-in-interest are required to implement the following to reduce the solid waste impacts from the proposed project.

a. Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).

b. Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

Transportation System Management

Mitigation Measure GCC-8: The owner, developer and/or successors-in-interest of the commercial and industrial land uses are required to form a Transportation Management Association or join and existing association to address the following:

a. Implement carpool/vanpool program such as carpool ride matching for employees, assistance with vanpool formation and provision of vanpool vehicles.

b. Provide transit incentives (e.g., transit use incentives for employees, transit route maps and schedules posted at work site, and design and locate buildings to facilitate transit access.

c. Provide bicycle enhancing infrastructure that includes bikeways/paths connecting to a bikeway system, secure bicycle parking, and/or employee lockers and showers.

d. Establish midday shuttle service from worksite to food service establishments/commercial uses and provide shuttle to transit stations/multimodal centers.

e. Promote ride sharing programs by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web sit or message board for coordinating rides.

Trip Reduction

Mitigation Measure GCC-9. The owner, developer, and/or successor-in-interest (ODS) shall address the following measures during the preparation of improvement plans to address an overall reduction in project-related vehicle miles traveled (VMT), including:

Traffic Calming

a. Traffic calming measures shall be included as part of the proposed project design with the objective of improving the overall quality of life for neighborhood residents by reducing safety hazards and nuisance impacts resulting from speeding vehicles, careless drivers and cut-through traffic.

b. Vehicle speeds within the project should be maintained at a level that provides maximum safety for residents. Consistent with the City's adopted Traffic Calming Guidelines, the project shall

incorporate roundabouts, short block lengths, traffic circles, and high visibility crosswalks to reduce traffic speeds and enhance pedestrian safety.

Services Operational

a. Ensure the provision of convenience-serving commercial uses (e.g., bank ATM, dry cleaners, hardware, dry goods) for project area residents.

b. Provide on-site childcare or contribute to off-site childcare services within walking distance.

Pedestrian Sidewalks & Pathways

a. Connections to nearby public uses and commercial areas shall be made as direct as possible to promote walking.

b. Sidewalks and bikeways shall be designed to separate pedestrian and bicycle pathways from vehicle paths.

c. Sidewalks and pedestrian pathways shall be easy to navigate and designed to facilitate pedestrian movement through the project and create a safe environment for all potential users from obstacles and automobiles.

d. Convenient pathways should be provided in large parking lots to address safe pedestrian movement.

e. Sidewalks shall be designed for high visibility (e.g., brightly painted, different color of concrete, etc.) when crossing parking lots, streets, and similar vehicle paths.

Bicycle

a. The bicycle circulation system should be planned to act as a regional circulation system connecting the proposed project to Stockton's roadway/bikeway system.

b. Bicycle parking shall be provided at the commercial sites. Additional, secure bicycle parking is incorporated at the multi-family home development.

c. Incorporate bicycle lanes and routes into the street system.

d. Incorporate bicycle-friendly intersections into street design.

e. For commercial building, require adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. For larger commercial building, provide facilities that encourage bicycle commuting, including locked bicycle storage or covered or indoor bicycle parking, locker rooms with showers.

f. Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.

Transit

a. A through roadway should connect adjacent developments so as to permit transit circulation between developments.

b. In major employment/commercial areas, parking should be prohibited on collector and arterial streets to provide access to bus stops in these areas.

c. Shielded openings in subdivisions sound walls should be provided to facilitate more direct pedestrian access to transit stops.

d. In major employment/commercial areas, the Transit District should be encouraged to post route and schedule information.

e. Commercial and industrial developments should have easy access to major arterials and transit stops.

f. The project would encourage public transportation by incorporating bus turnouts, shelters, and walkways into the design. As detailed in the City of Stockton's Traffic Calming Guidelines, the San Joaquin Regional Transit District (SJRTD) will review project site plans and identify potential bus stop locations.

g. Locate the highest density land use at or within ¼ mile of a transit stop.

h. Provide transit-enhancing infrastructure that includes bus shelters, benches, street lighting, route signs and displays and bus turn-outs.

i. Prior to approval of the Tentative Map, contact San Joaquin Regional Transit District (SJRTD) to identify appropriate location(s) for bus stops within the community.

Based on the project GHG emissions noted in Table 4.15.C, at a project level, the application of reasonable and feasible measures will assist in reducing the global climate change effects. However, as a result of the uncertainties and professional/scientific disagreements, the ability to forecast project conclusions with absolute certainty remains elusive, irrespective of the implementation of mitigation measures. It is therefore concluded that the project will have a significant and adverse effect absent conclusive findings and measurable thresholds. For this reason, even with the implementation of mitigation measures, including state-of-the-art programs such as Build It Green, the project will have a significant and unavoidable impact on global climate change. The conditions outlined in Significance Criteria GCC-a will occur.

Cumulative Impacts

Operation-related activities would result in Tidewater Crossing generated emissions of greenhouse gases (GHGs). The proposed project would accommodate more than 7,750 new residents, which is substantial. Although the overall percentage contribution of project GHG emissions is incremental, when combined with other significant development projects in the City of Stockton and greater San Joaquin County region, the proposed project's contribution to long-term atmospheric GHG emissions would be considered significant on a cumulative basis. The proposed project would produce substantial levels of new GHG emissions, based on a per-capita calculation and a substantial number of new residents, resulting in a significant and unavoidable impact. Mitigation measures would reduce

GHG from the proposed project, but they are not sufficient to reduce the proposed project's cumulative impact contribution to less than significant levels. Because the impact would be significant on a project-by-project basis, the proposed project would also result in a significant contribution to global warming impacts on an incremental basis. Thus, the proposed project would result in a substantial contribution to a significant and unavoidable cumulative impact.

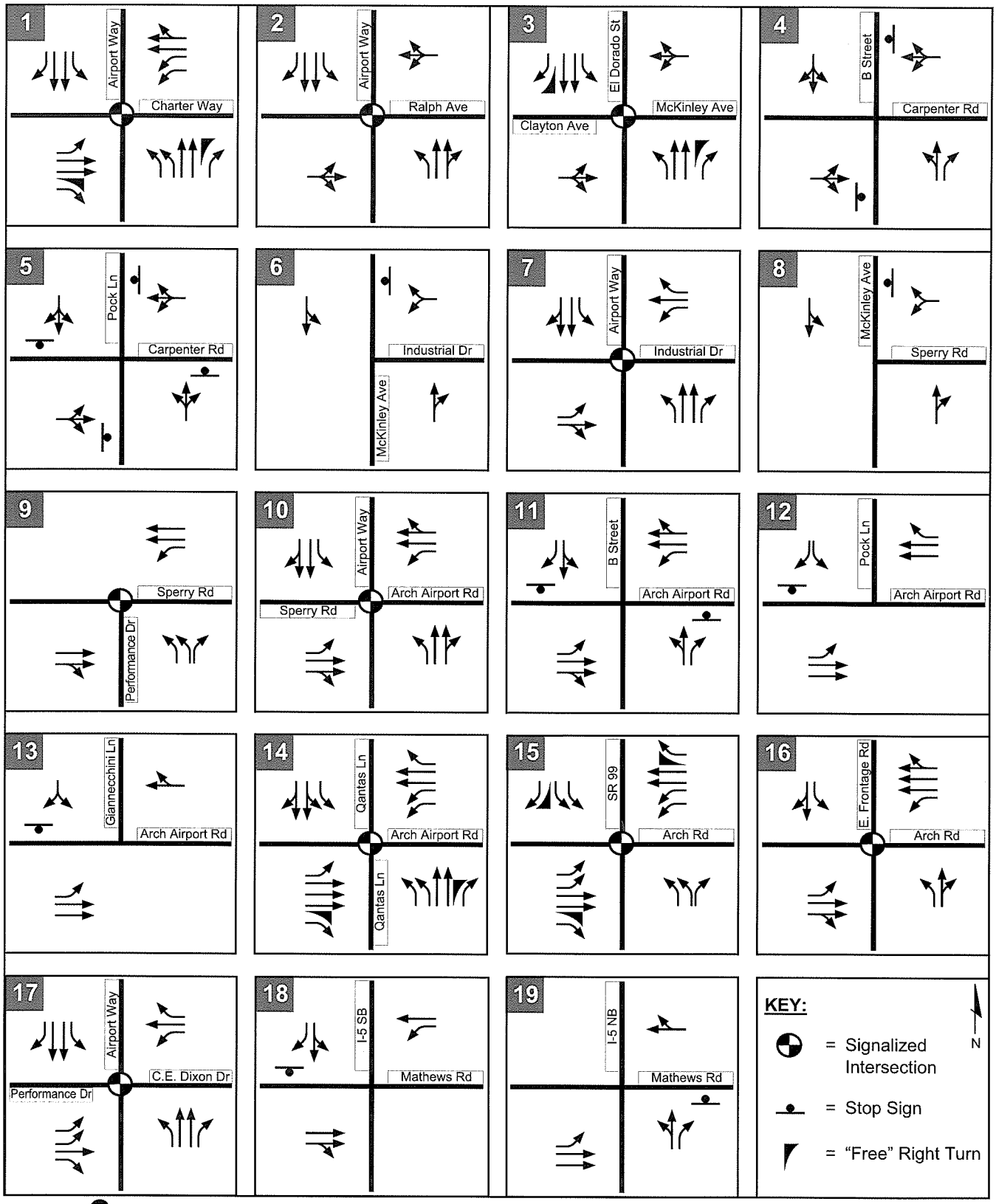
Based on the cumulative projects proposed in the City of Stockton and the surrounding region, the incremental contribution of GHG from these projects is substantial in size and scale. When considered collectively, the cumulative effects combine together to create the potential for measurable changes. Even with the application of the proposed measures and design features, the potential climate-related changes will remain significant and unavoidable on a cumulative level. The conditions outlined in Significance Criterion GCC-a will occur.

4.15.5 Level of Significance After Mitigation

Implementation of the additional design features listed above will help reduce the project's contribution to greenhouse gas emissions. However, despite implementation of the project's sustainable design and the mitigation measures, GHG emissions at a project level cannot be completely mitigated and will have an incremental, significant and adverse effect on the environment. When combined with projected growth, the GHG emissions from the project and the total GHG from the region are expected to substantially increase when compared with current conditions. Therefore, estimated cumulative GHG emissions would be considered significant and unavoidable on a cumulative basis.

APPENDIX B

REVISED TRAFFIC FIGURES



Tidewater Crossing Master Plan

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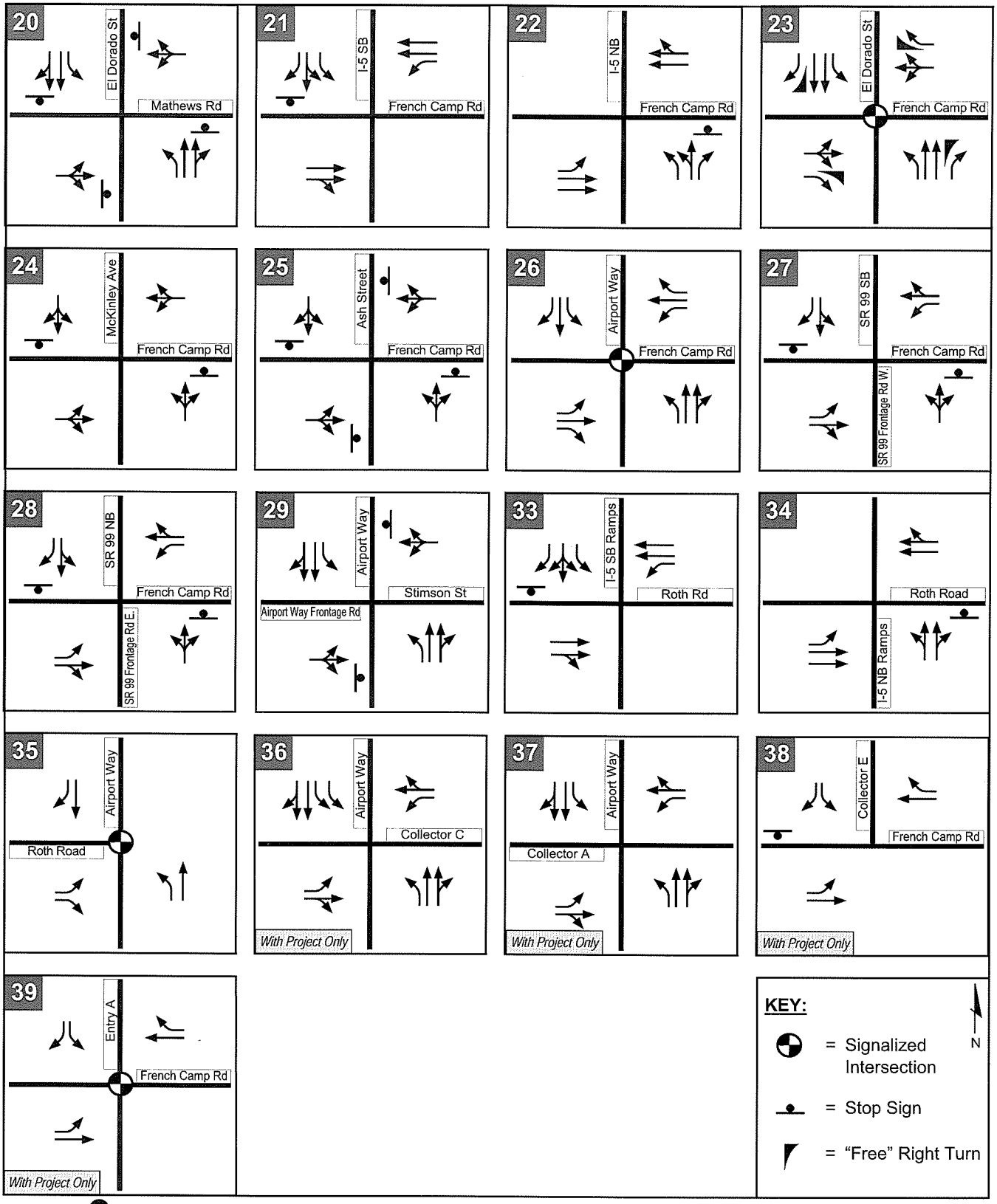
EXISTING AND EXISTING PLUS APPROVED PROJECTS (EPAP) LANE CONFIGURATIONS AND TRAFFIC CONTROL

FIGURE 4.7-3A

May 2008
Graphics\May8\WC05-2159_4.7-3A



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EXISTING AND EXISTING PLUS APPROVED PROJECTS (EPAP) LANE CONFIGURATIONS AND TRAFFIC CONTROL

FIGURE 4.7-3B

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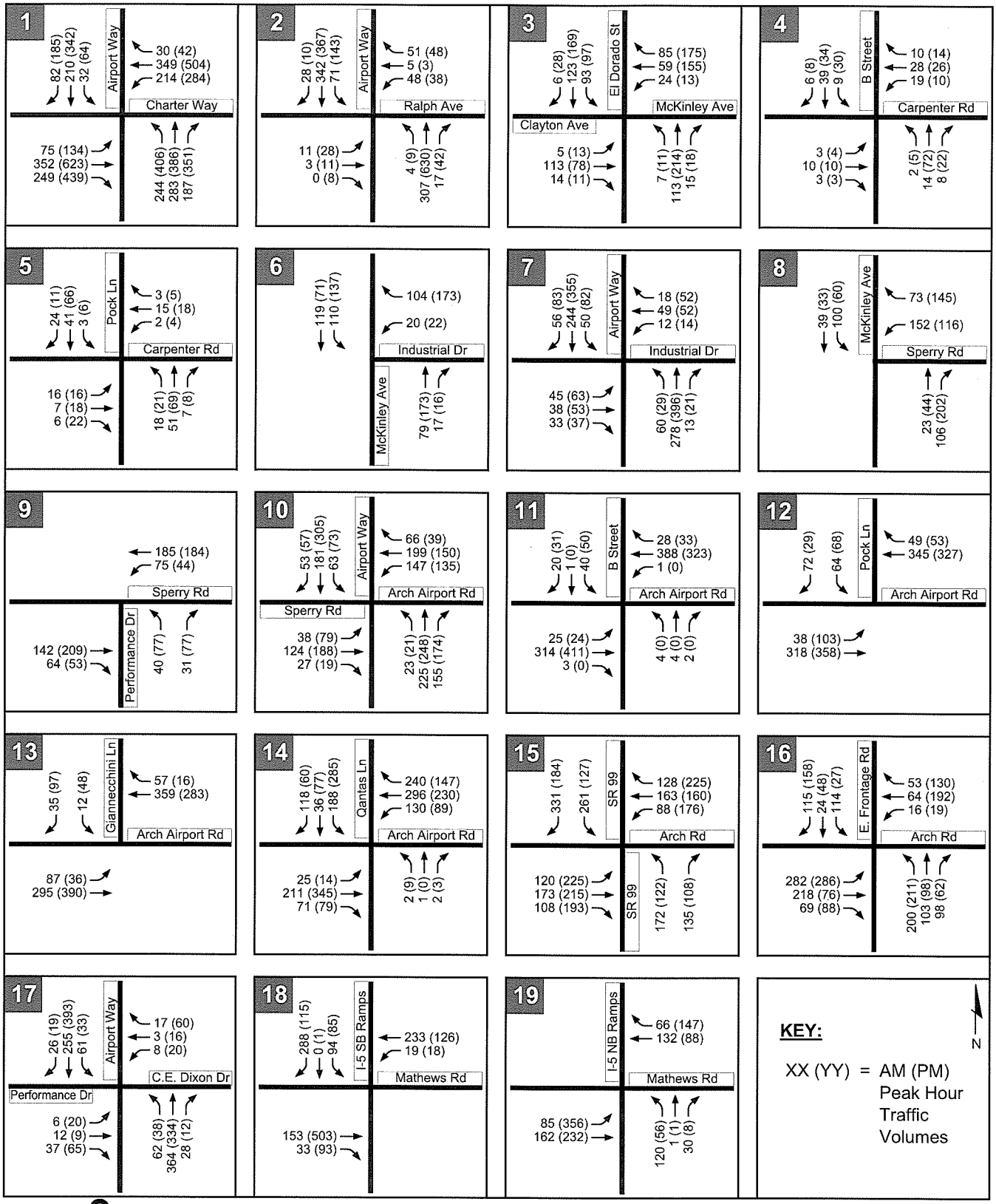

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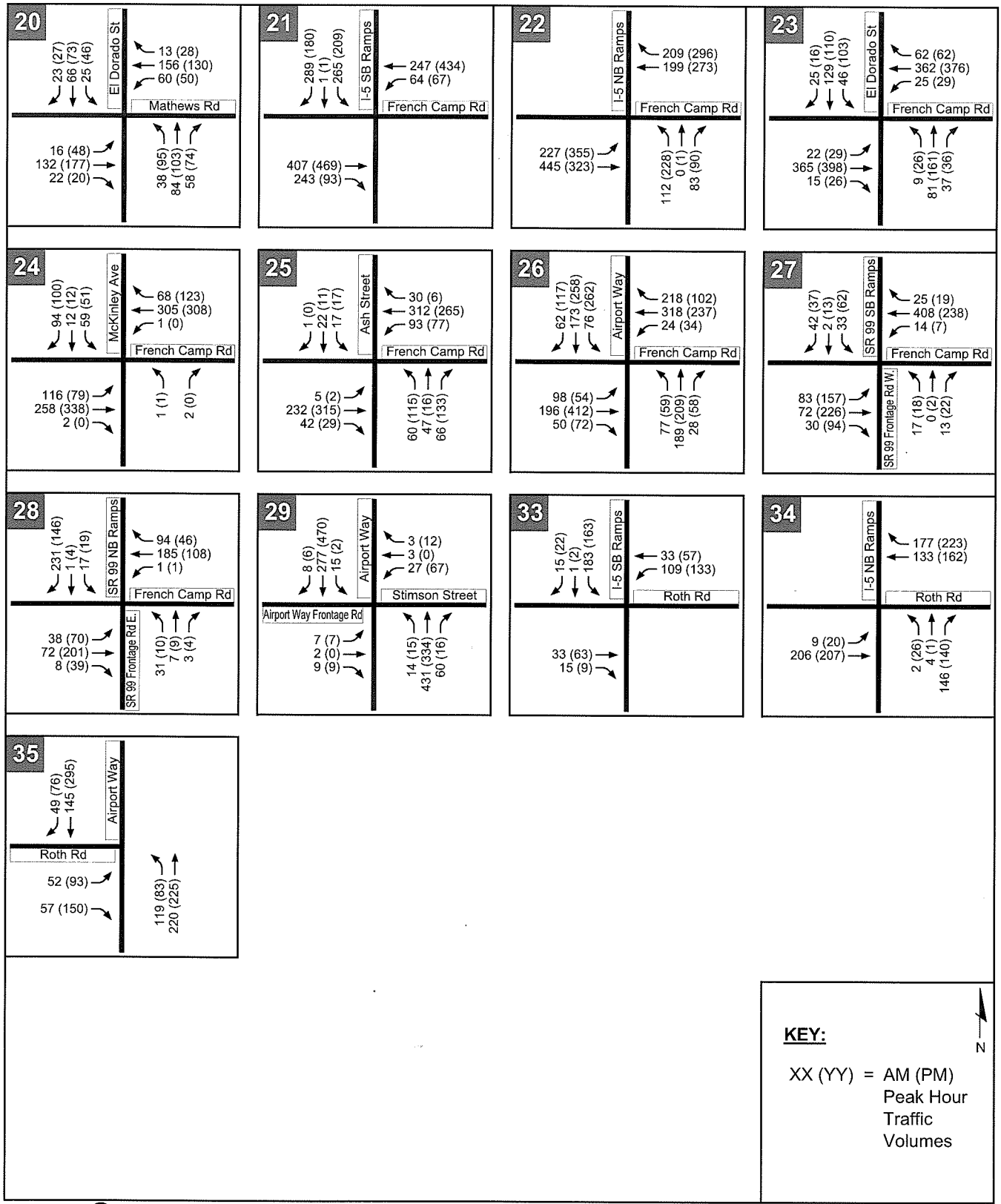
EXISTING PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-4A

May 2008
Graphics\May08\WC05-2159_4.7-4A



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EXISTING PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-4B

May 2008
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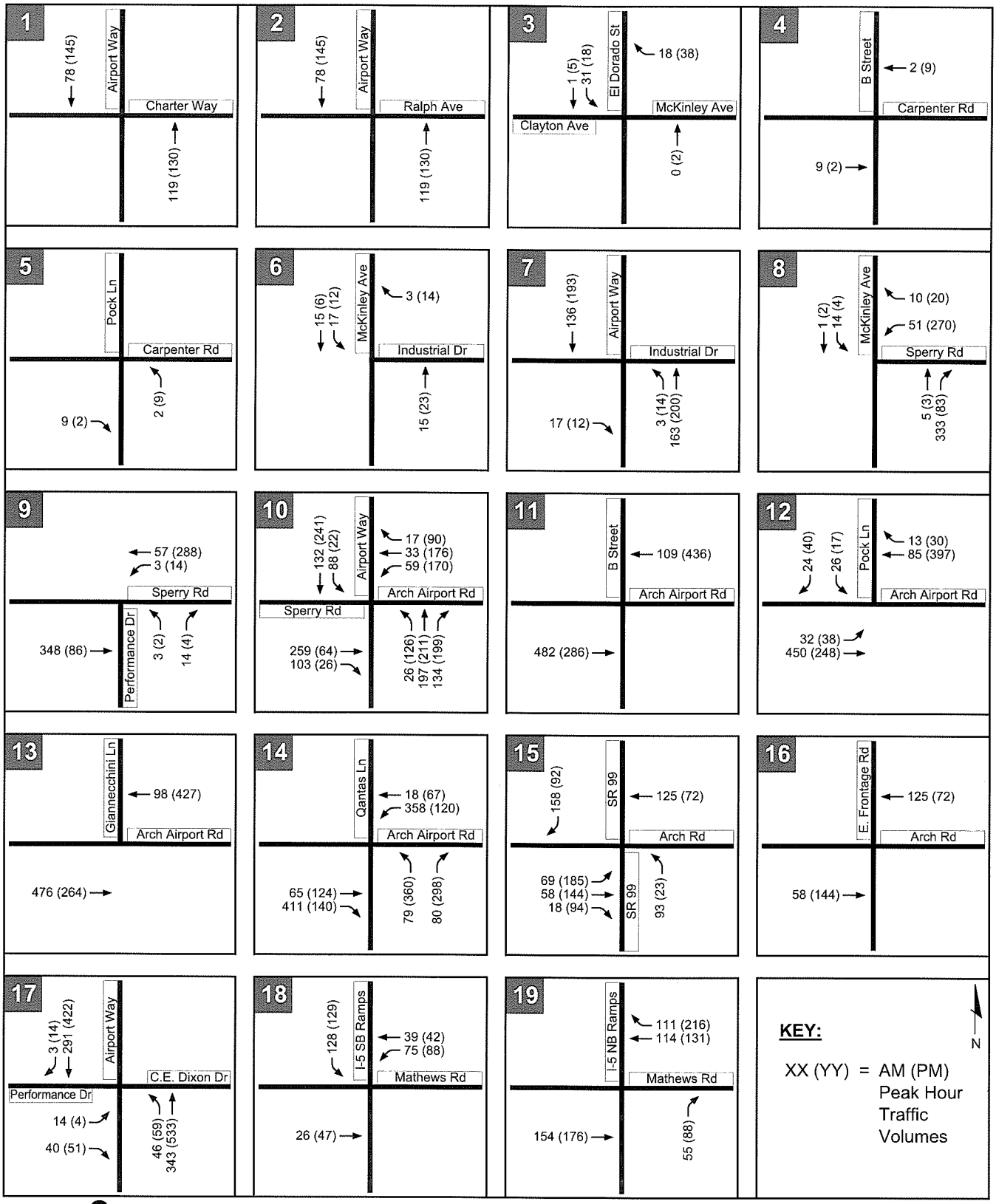

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EXISTING PLUS APPROVED PROJECTS (EPAP) PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 4.7-8A

May 2008
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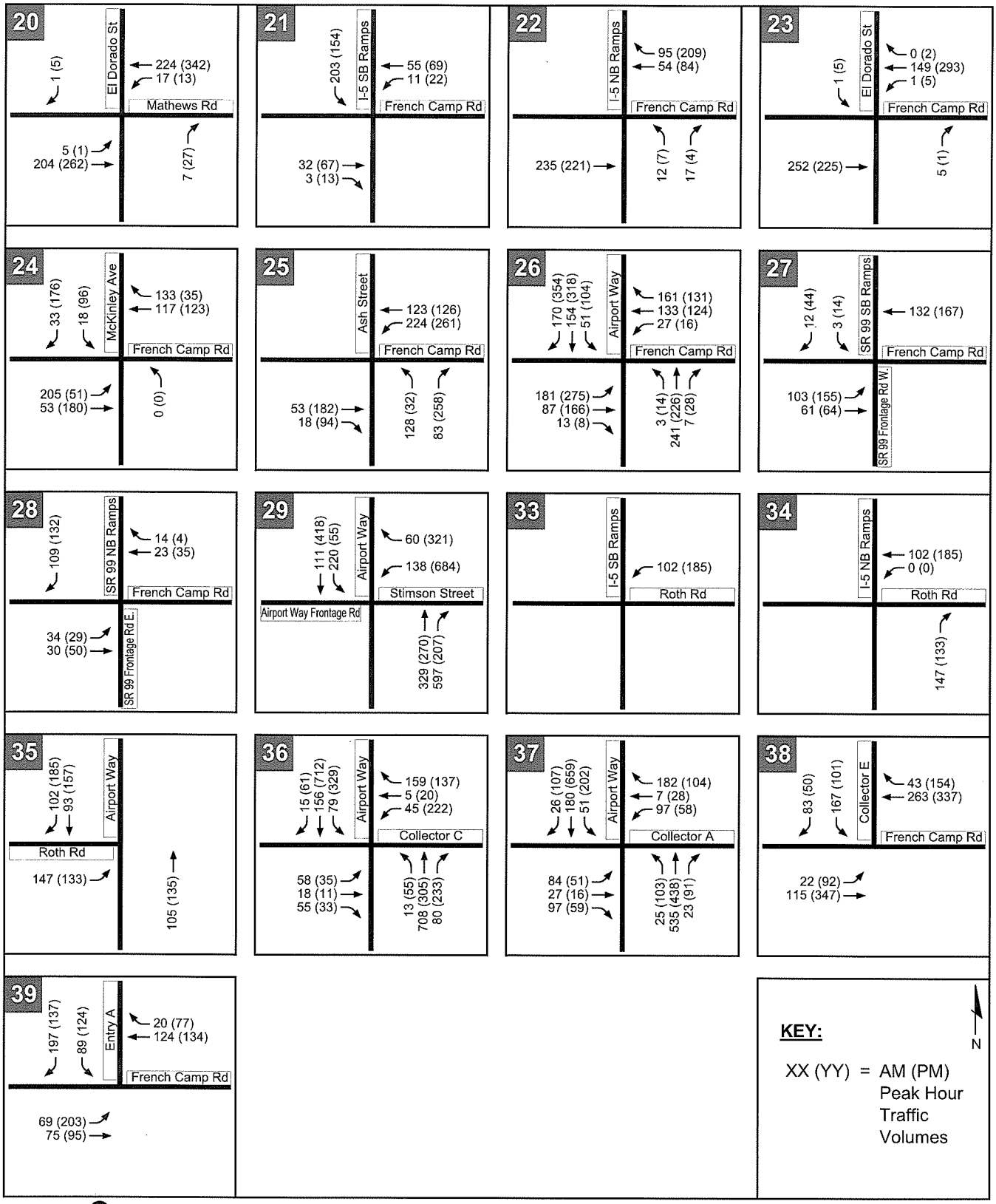

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EXISTING PLUS APPROVED PROJECTS (EPAP) PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 4.7-8B

May 2008
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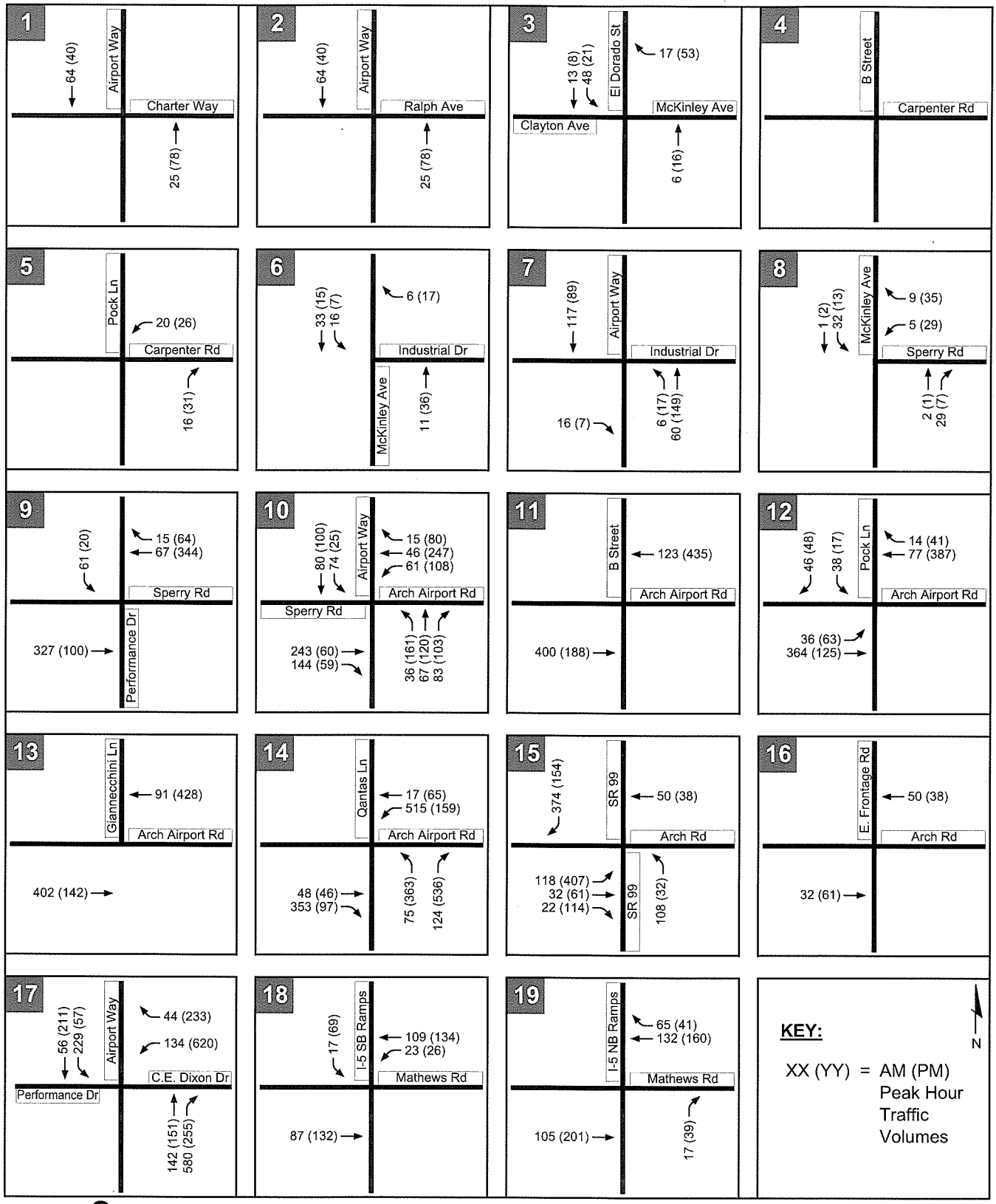

Tidewater Crossing Master Plan

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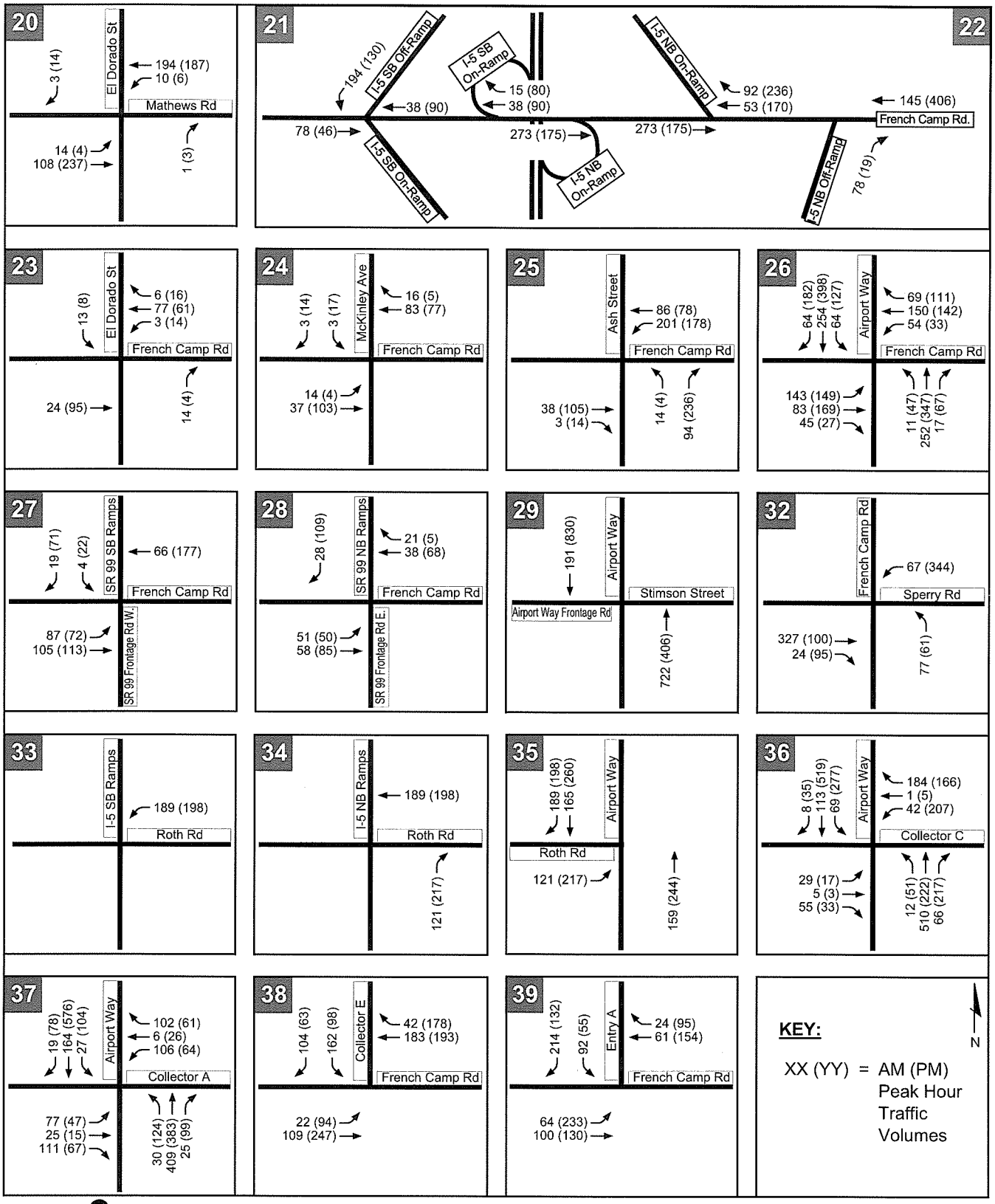
FUTURE (YEAR 2025) PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 4.7-9A

May 2008
Graphics\May08\WC05-2159_4.7-9A



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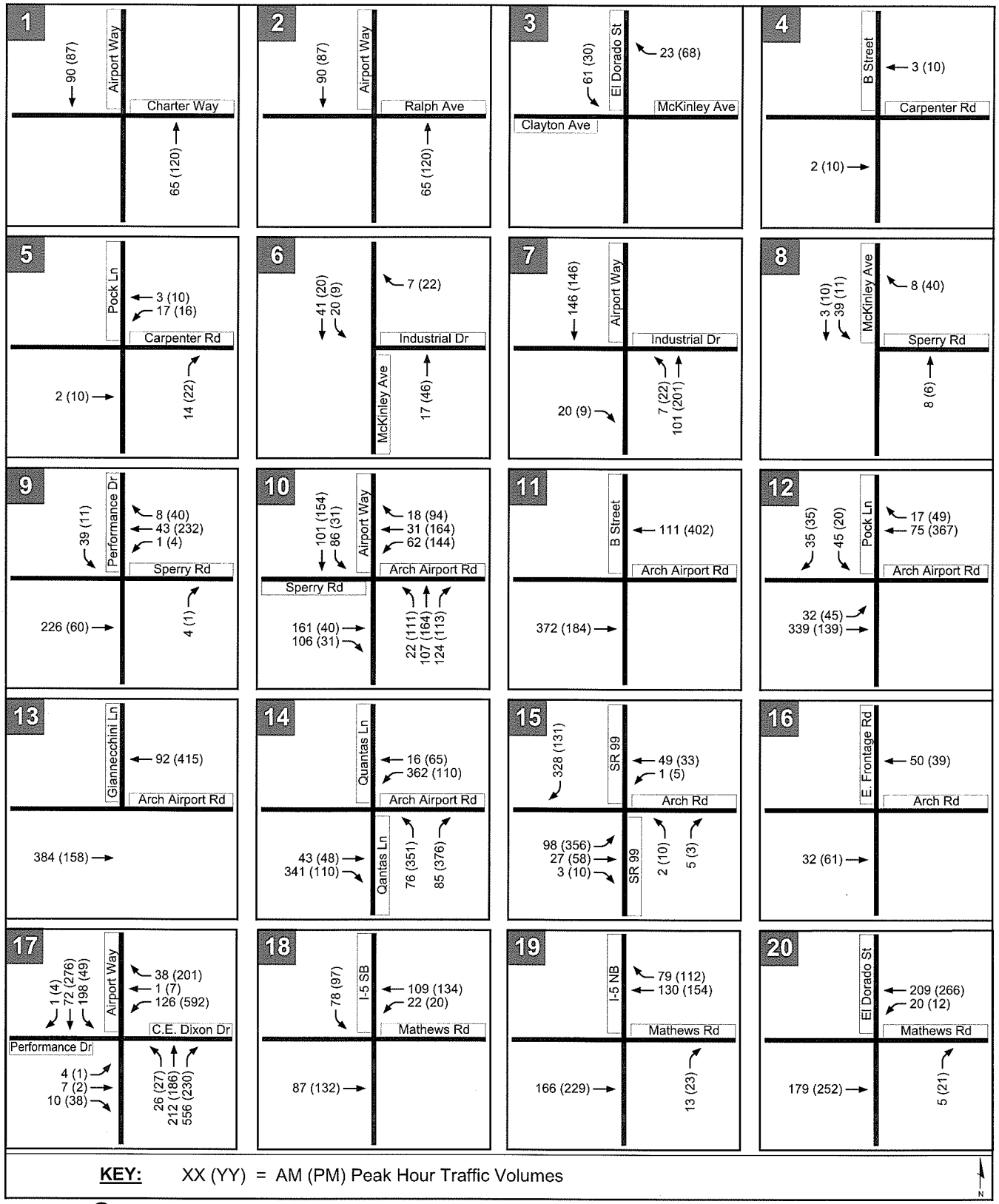
FUTURE (YEAR 2025) PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 4.7-9B

May 2008
Graphics\May08\WC05-2159_4.7-9B



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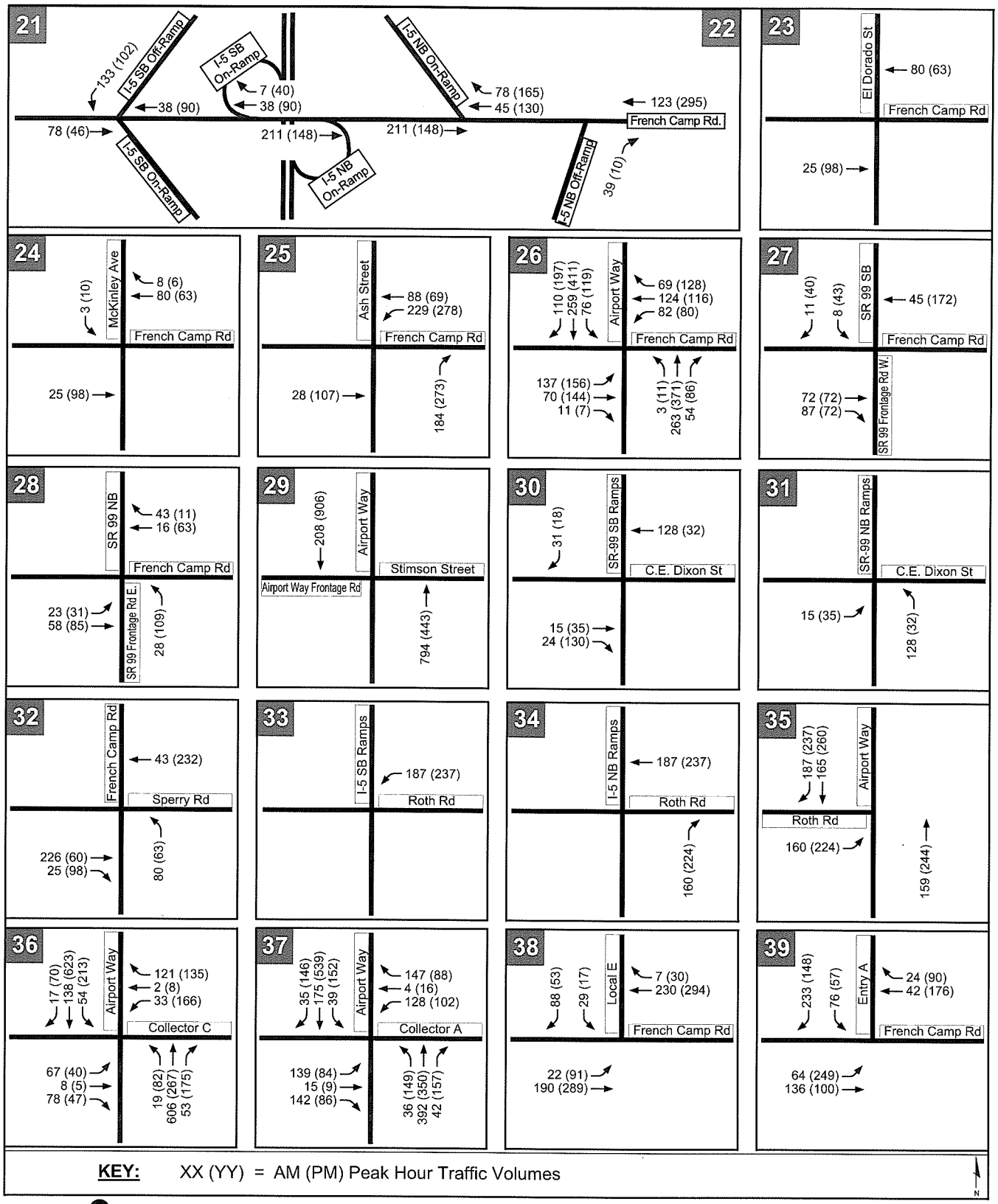
FUTURE (YEAR 2035) PEAK HOUR PROJECT TRIP ASSIGNMENT

May 2008
Graphics\May08\WC05-2159_4.7-10A

FIGURE 4.7-10A



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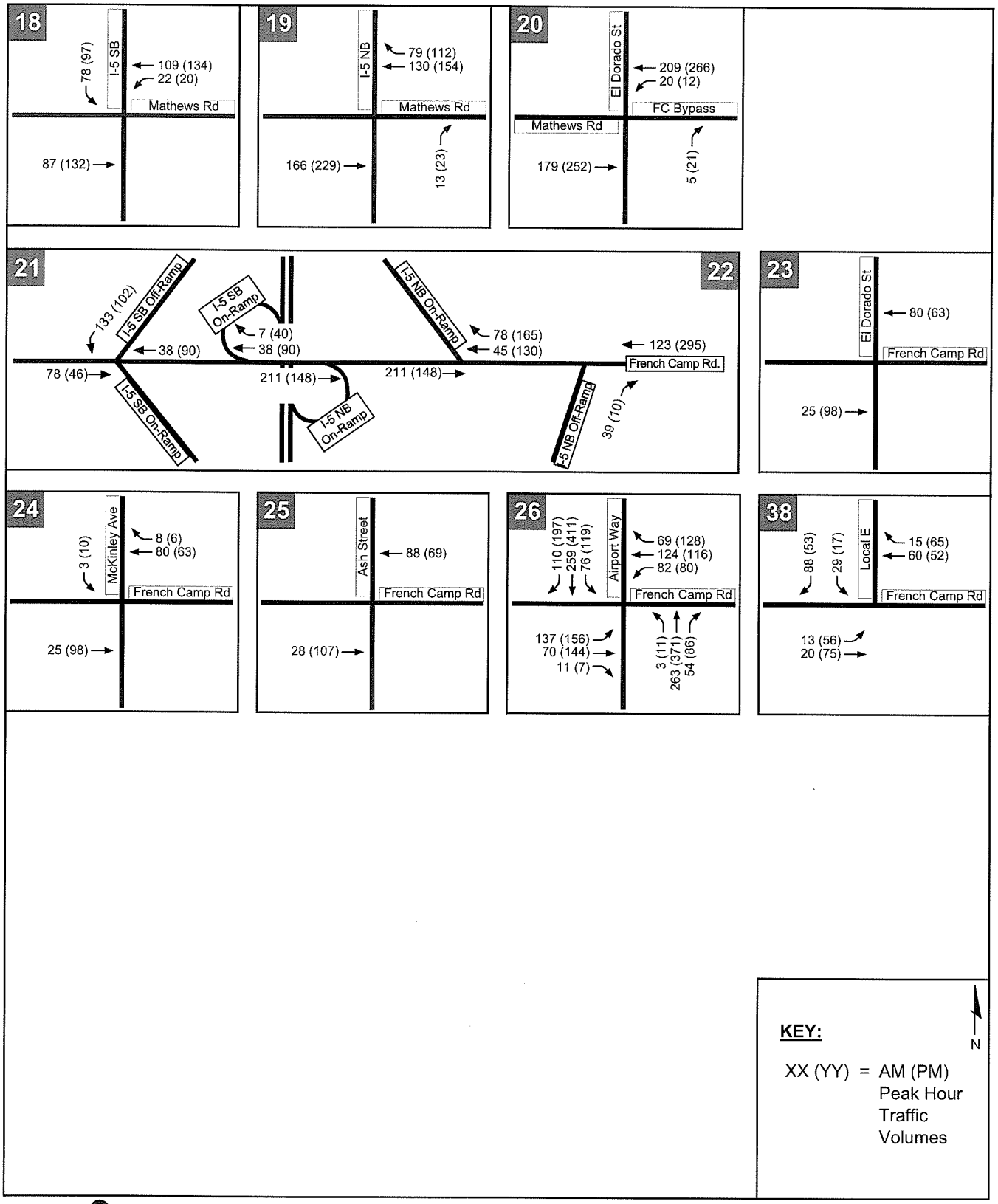
FUTURE (YEAR 2035) PEAK HOUR PROJECT TRIP ASSIGNMENT

May 2008
Graphics\May08\WC05-2159_4.7-10B

FIGURE 4.7-10B



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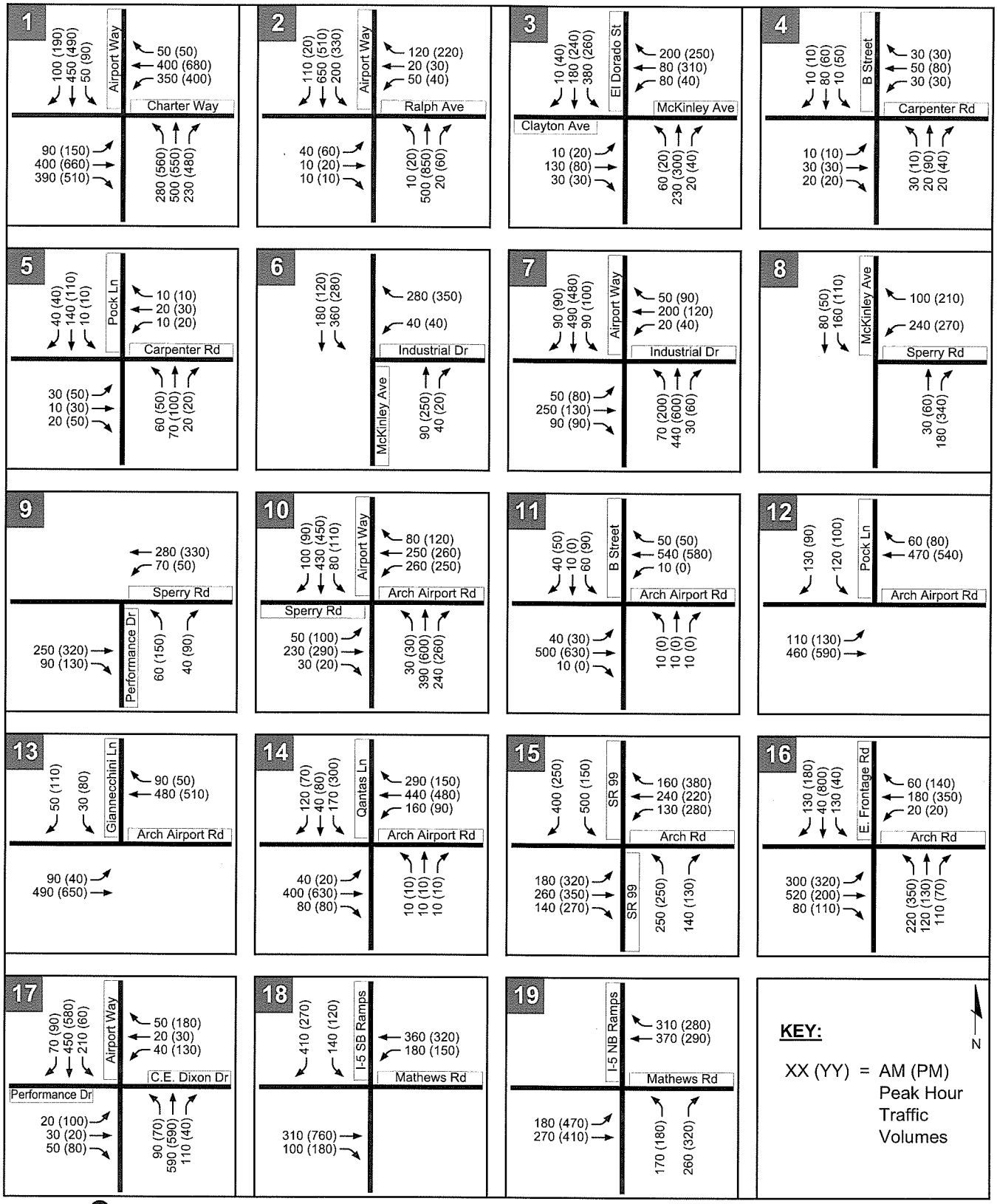
FUTURE (YEAR 2035 WITH BYPASS) PEAK HOUR PROJECT TRIP ASSIGNMENT

May 2008
Graphics\May8\WC05-2159_4.7-11

FIGURE 4.7-11



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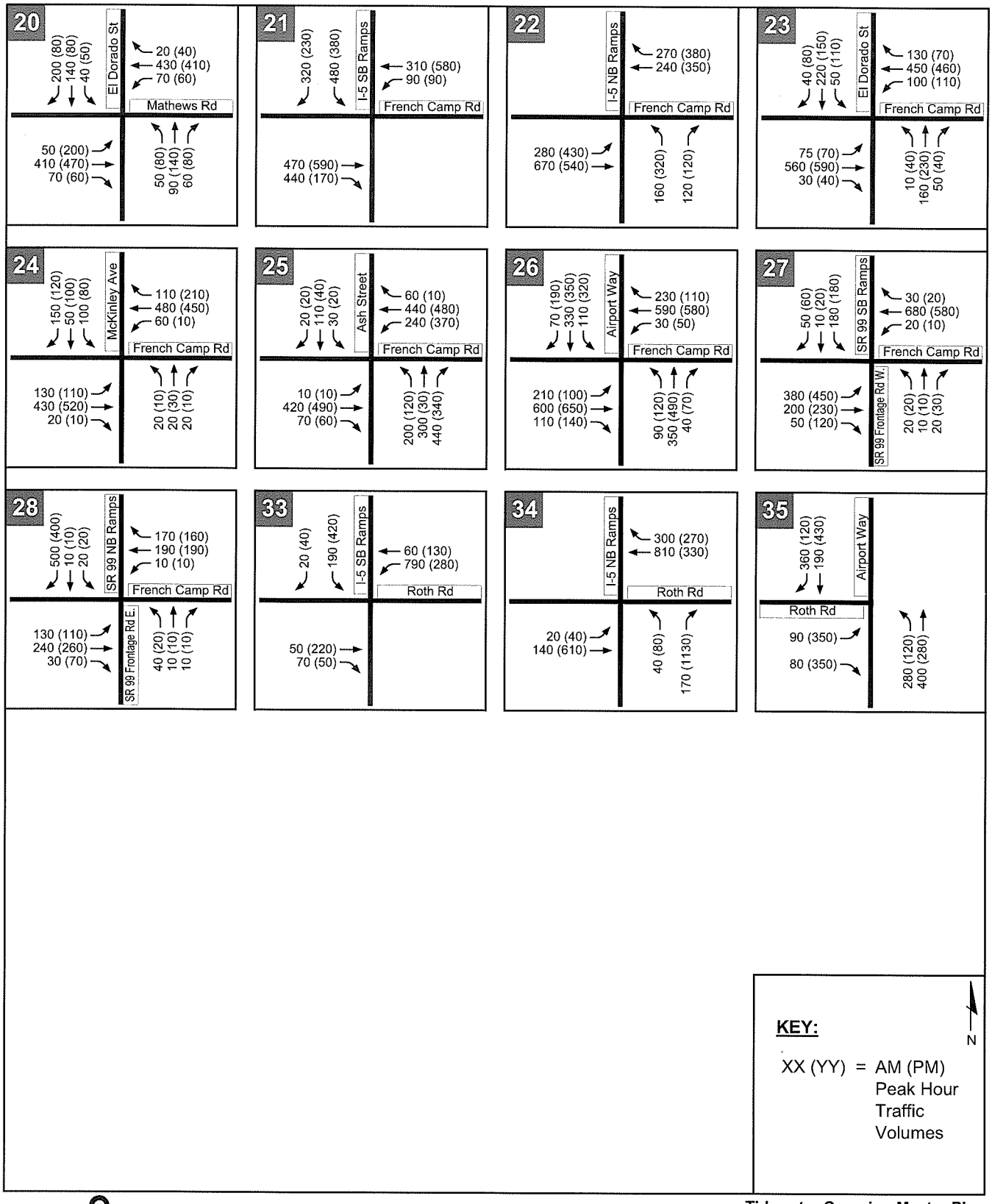
EXISTING PLUS APPROVED PROJECTS (EPAP) PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-12A

FIGURE 4.7-12A



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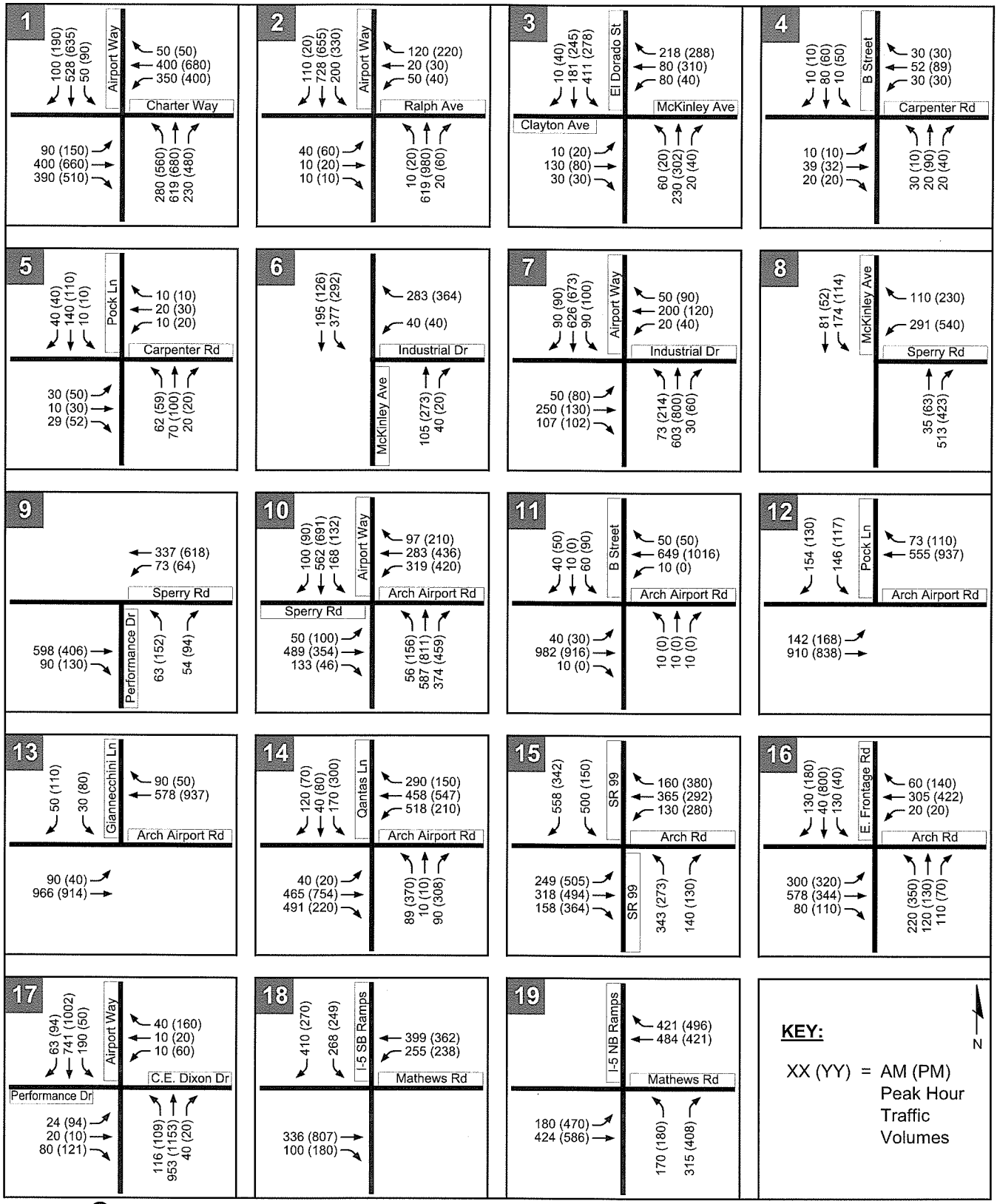
EXISTING PLUS APPROVED PROJECTS (EPAP) PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-12B

FIGURE 4.7-12B



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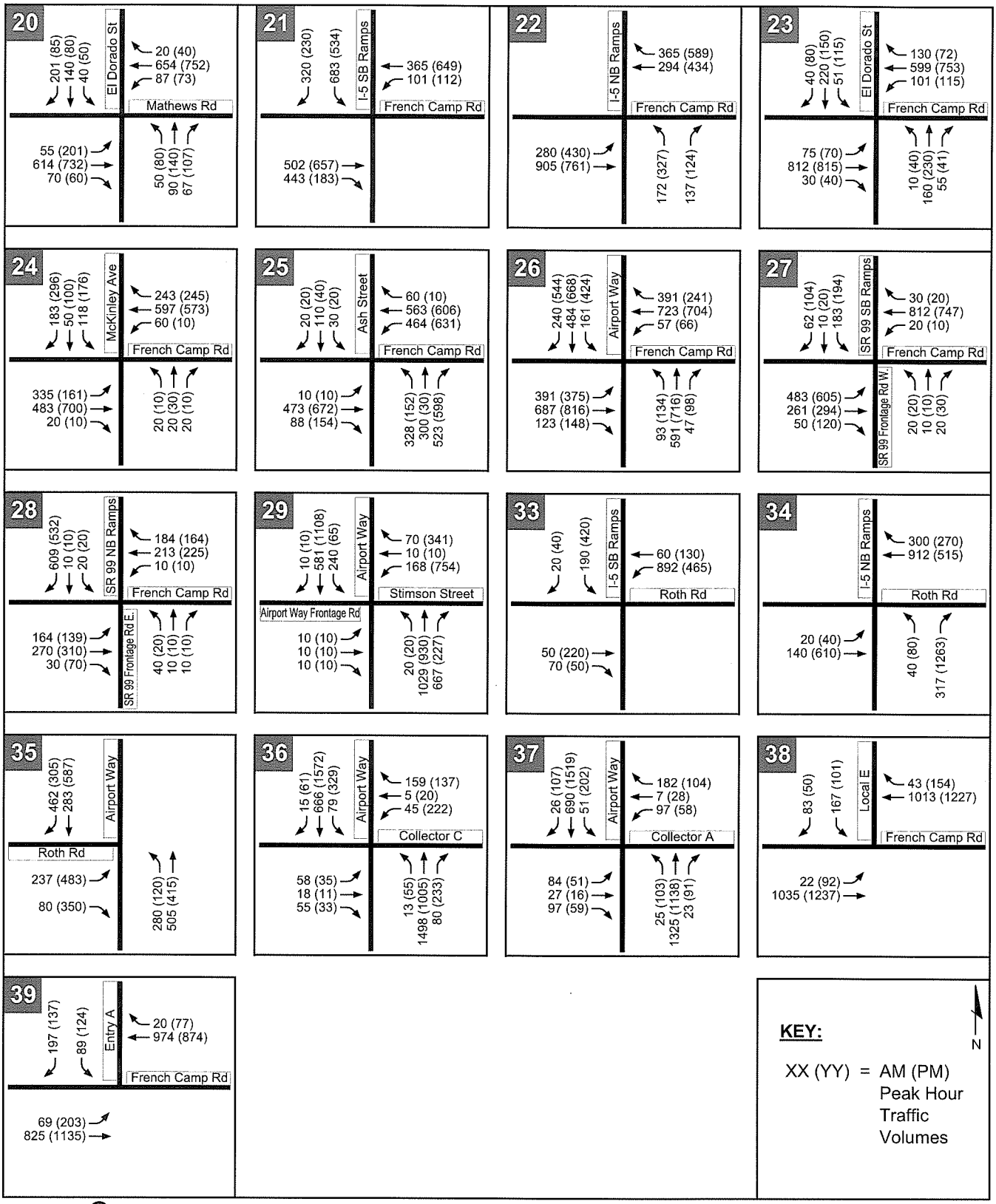
EXISTING PLUS APPROVED PROJECTS (EPAP) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-13A

FIGURE 4.7-13A



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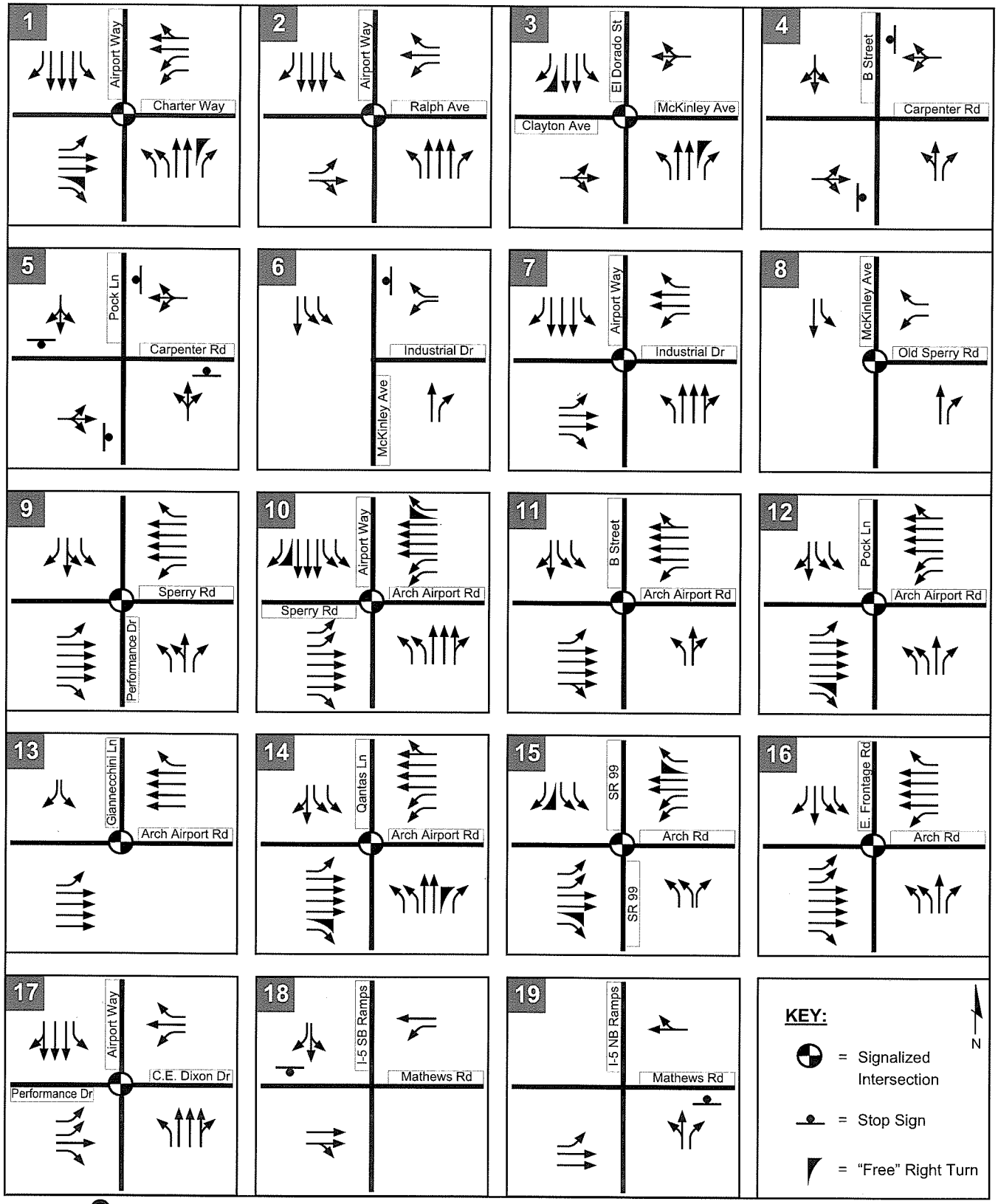
EXISTING PLUS APPROVED PROJECTS (EPAP) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-13B

FIGURE 4.7-13B



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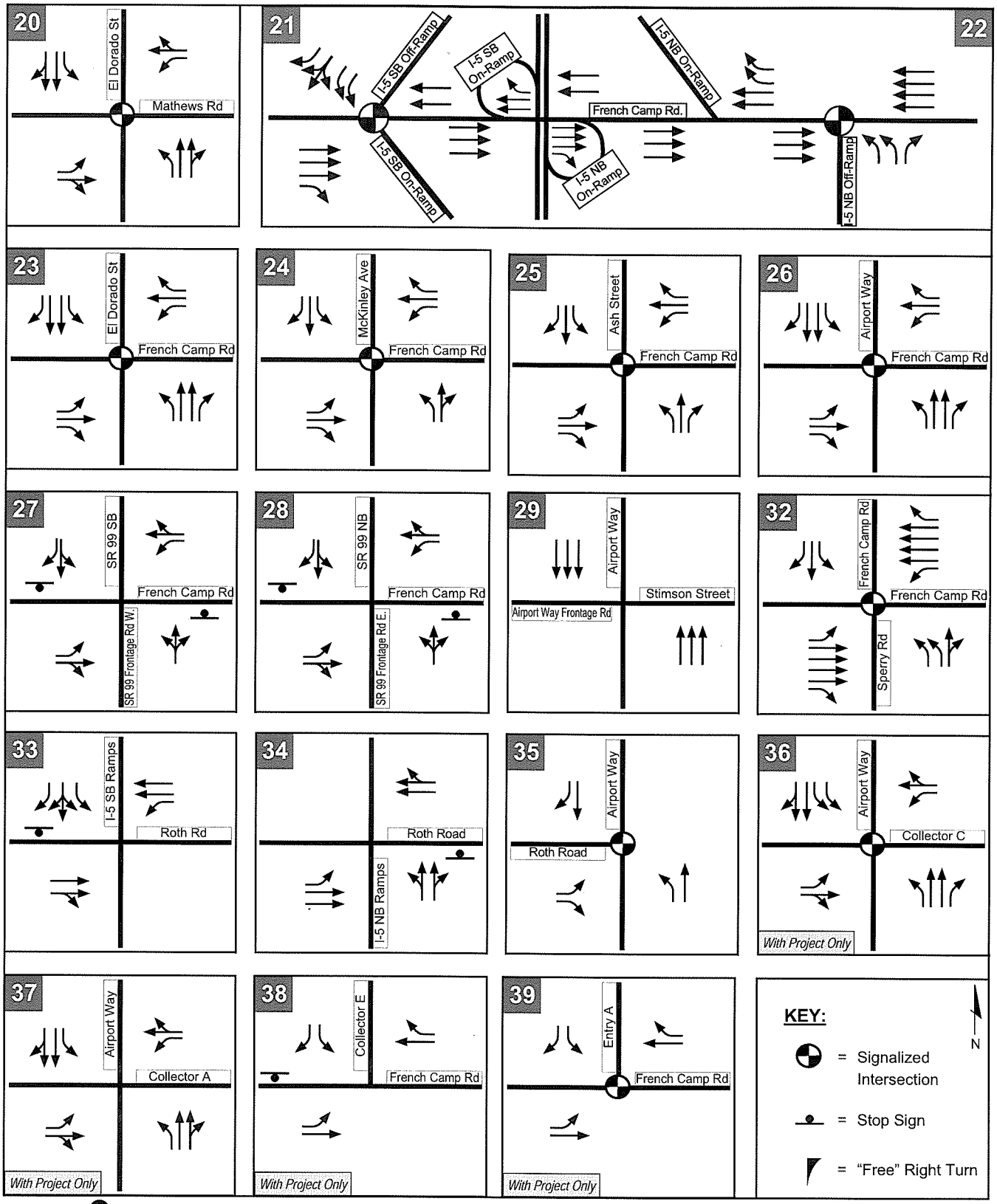
FUTURE (YEAR 2025) LANE CONFIGURATIONS AND TRAFFIC CONTROL

May 2008
Graphics\May08\WC05-2159_4.7-15A

FIGURE 4.7-15A



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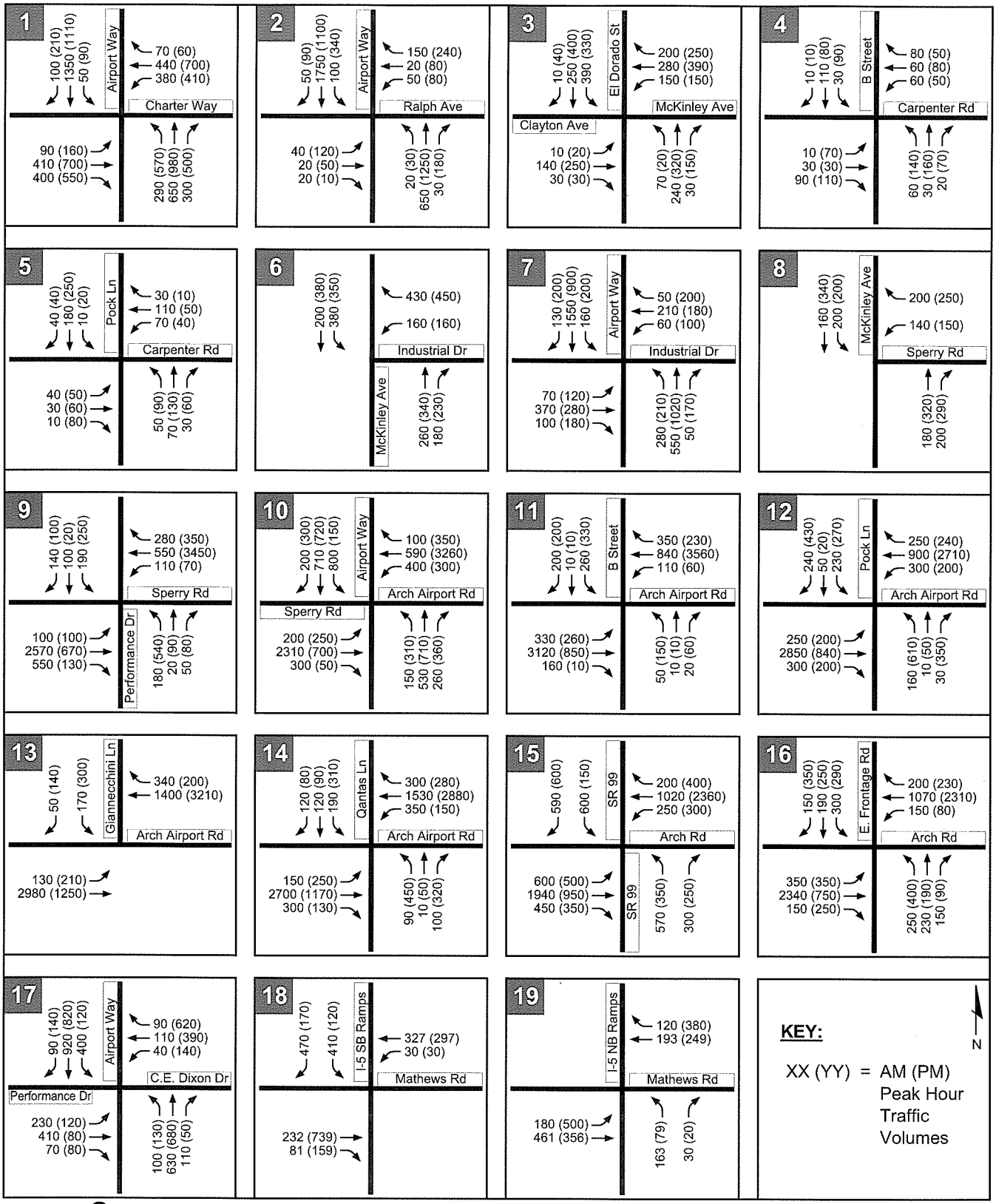
FUTURE (YEAR 2025) LANE CONFIGURATIONS AND TRAFFIC CONTROL

May 2008
Graphics\May08\WC05-2159_4.7-15B

FIGURE 4.7-15B



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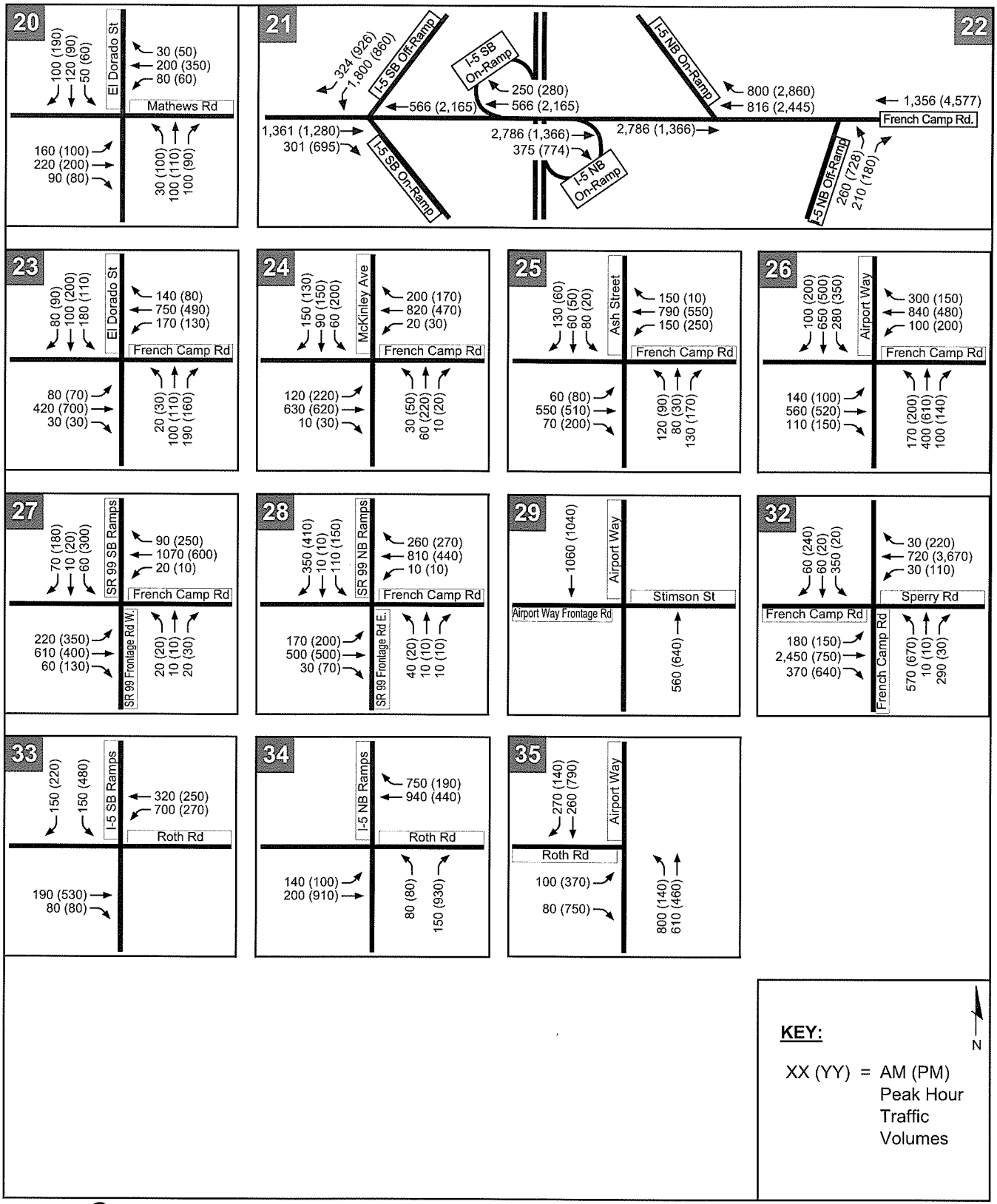
FUTURE (YEAR 2025) PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-16A

May 2008
Graphics\May08\WC05-2159_4.7-16A



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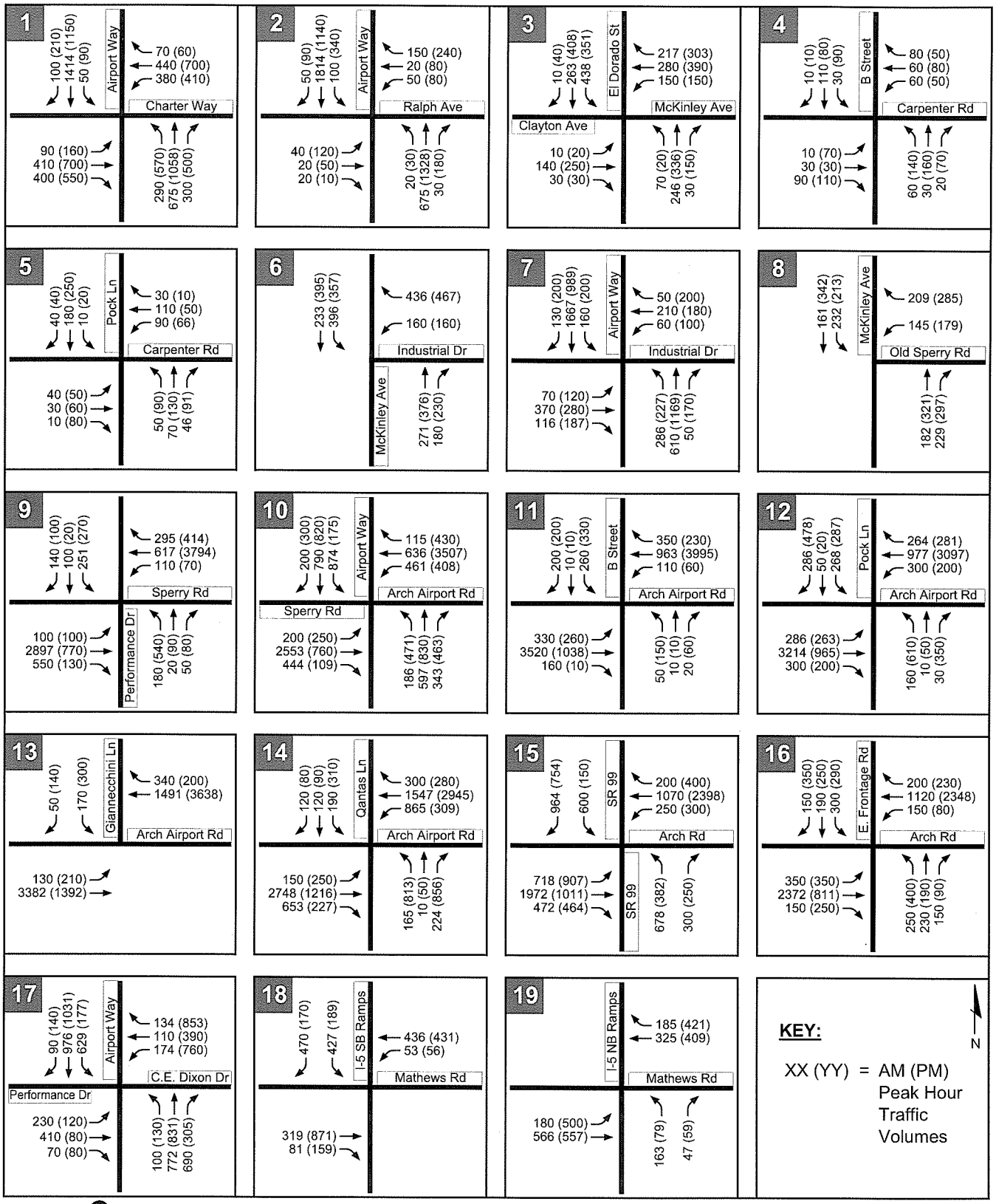
FUTURE (YEAR 2025) PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-16B

May 2008
Graphics\May08\WC05-2159_4.7-16B



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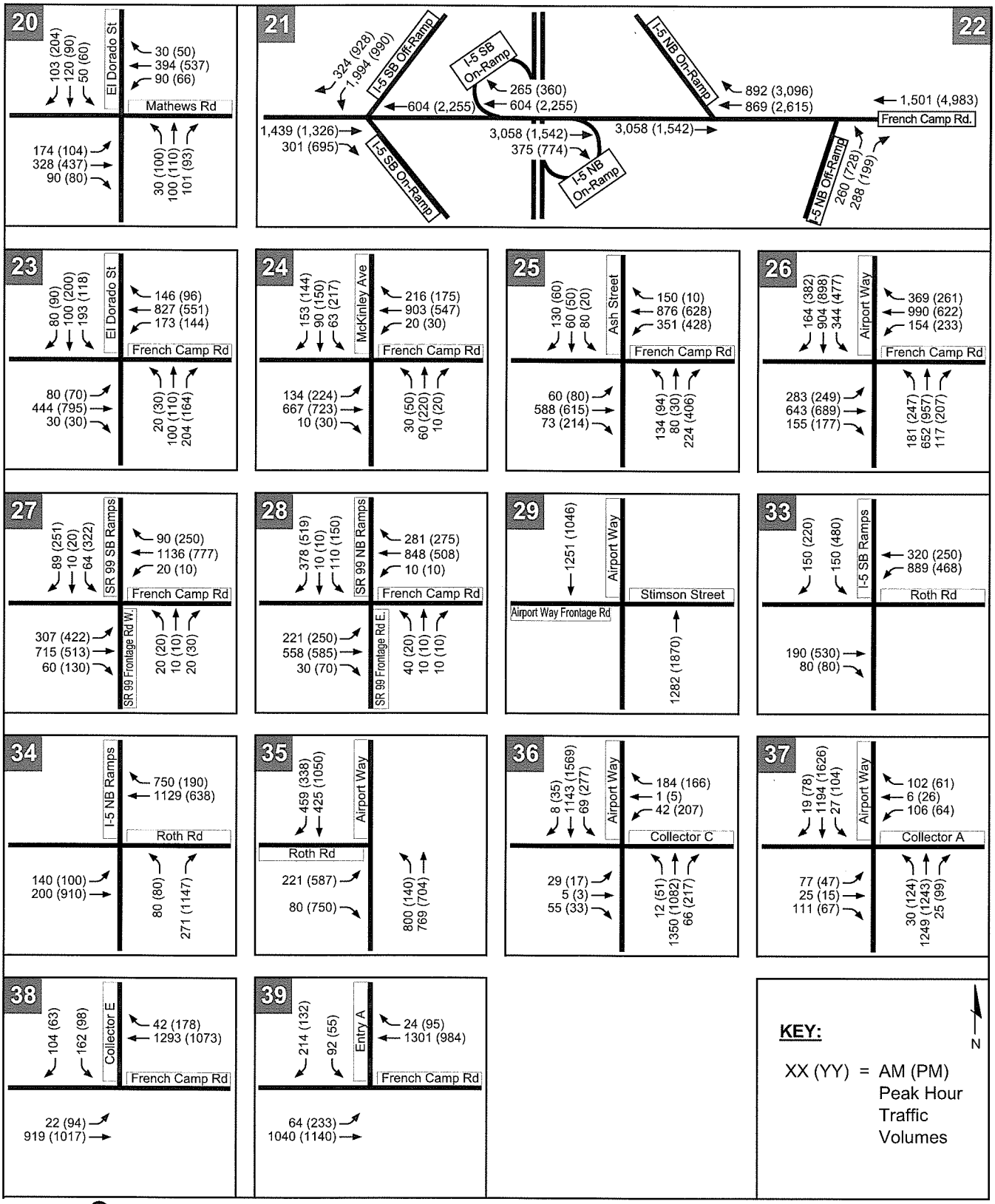
FUTURE (YEAR 2025) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-17A

FIGURE 4.7-17A



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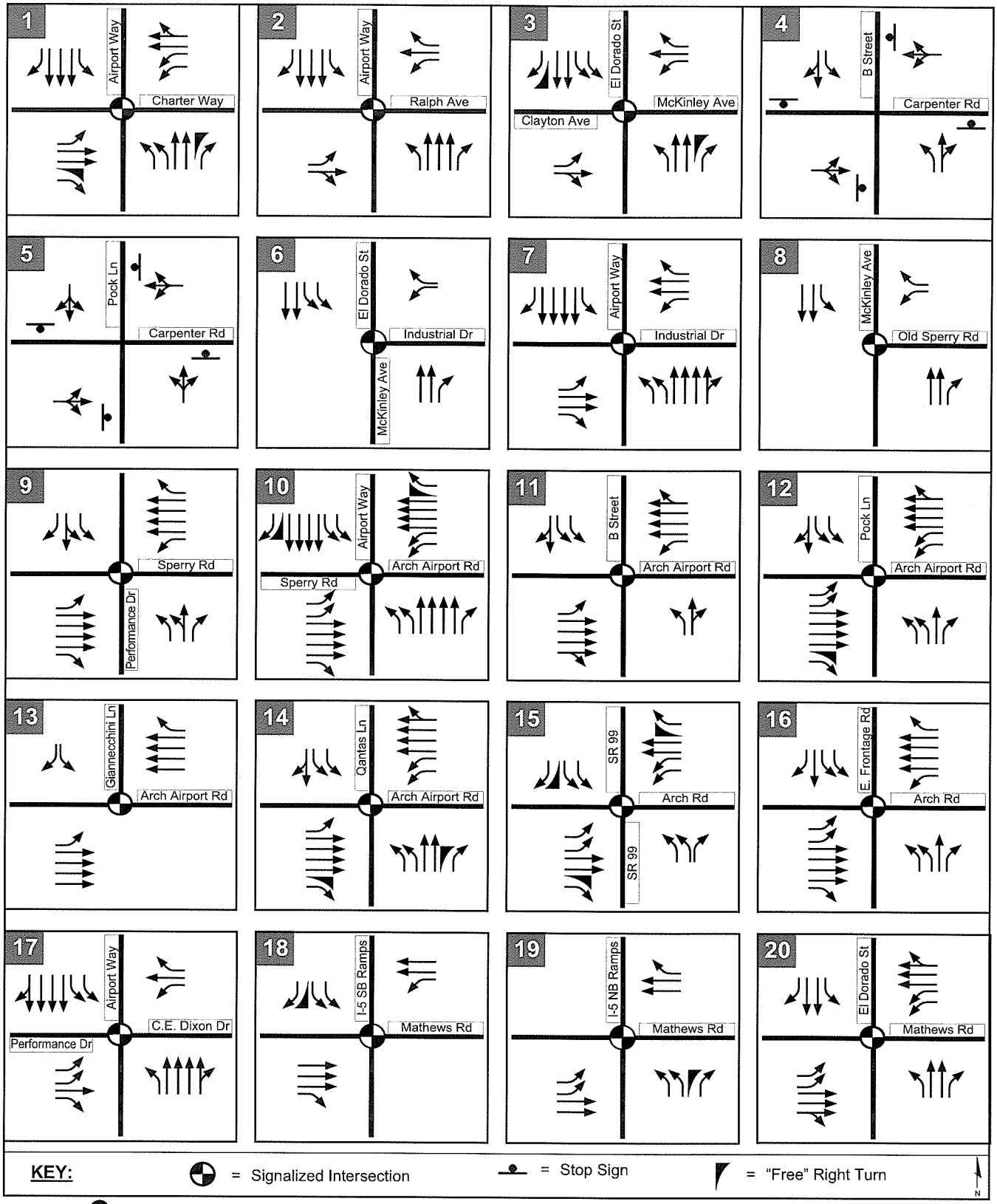
FUTURE (YEAR 2025) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-17B

FIGURE 4.7-17B



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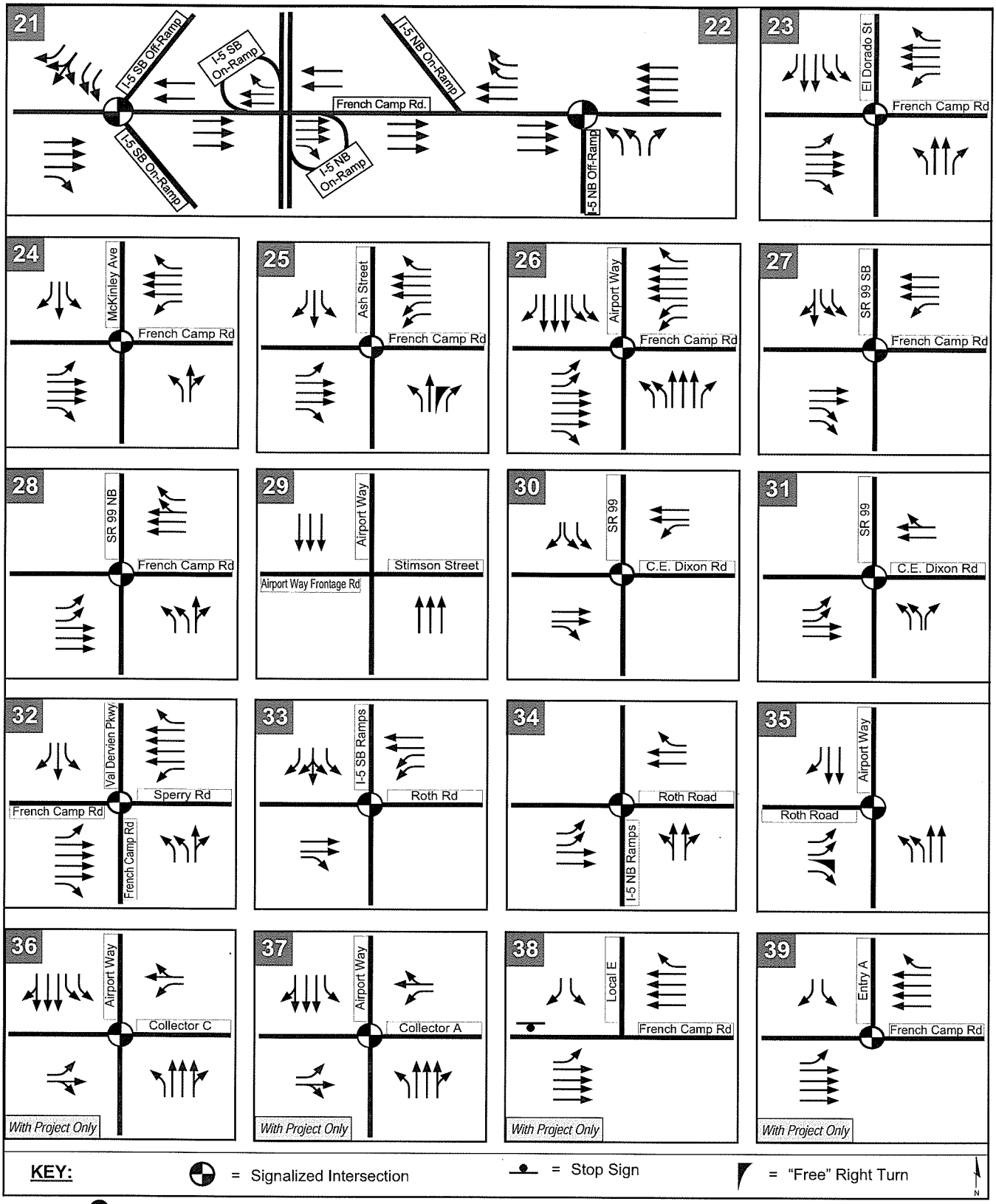
FUTURE (YEAR 2035) LANE CONFIGURATIONS AND TRAFFIC CONTROL

May 2008
Graphics\May08\WC05-2159_4.7-19A

FIGURE 4.7-19A



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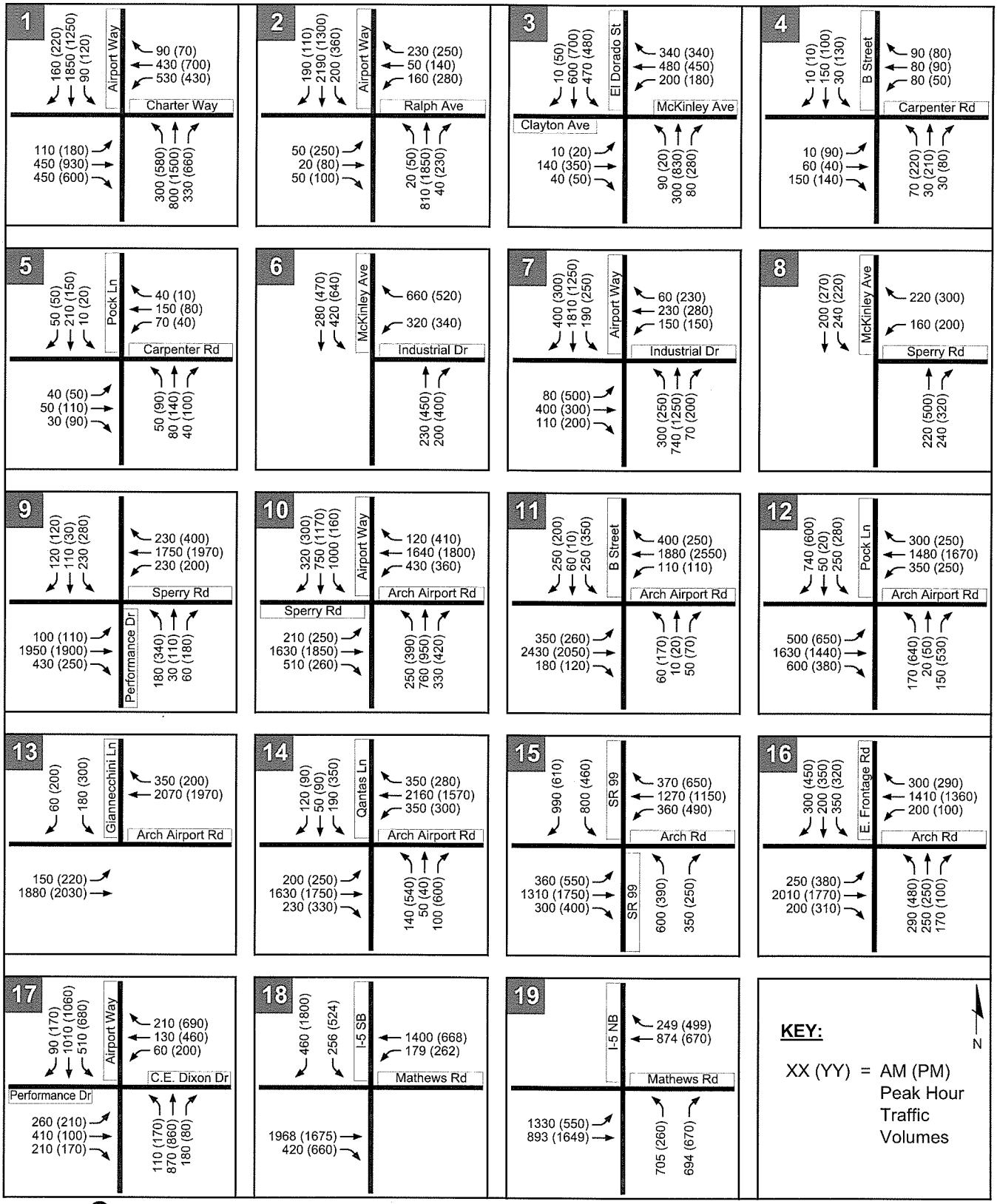
FUTURE (YEAR 2035) LANE CONFIGURATIONS AND TRAFFIC CONTROL

May 2008
Graphics\May08\WC05-2159_4.7-19B

FIGURE 4.7-19B



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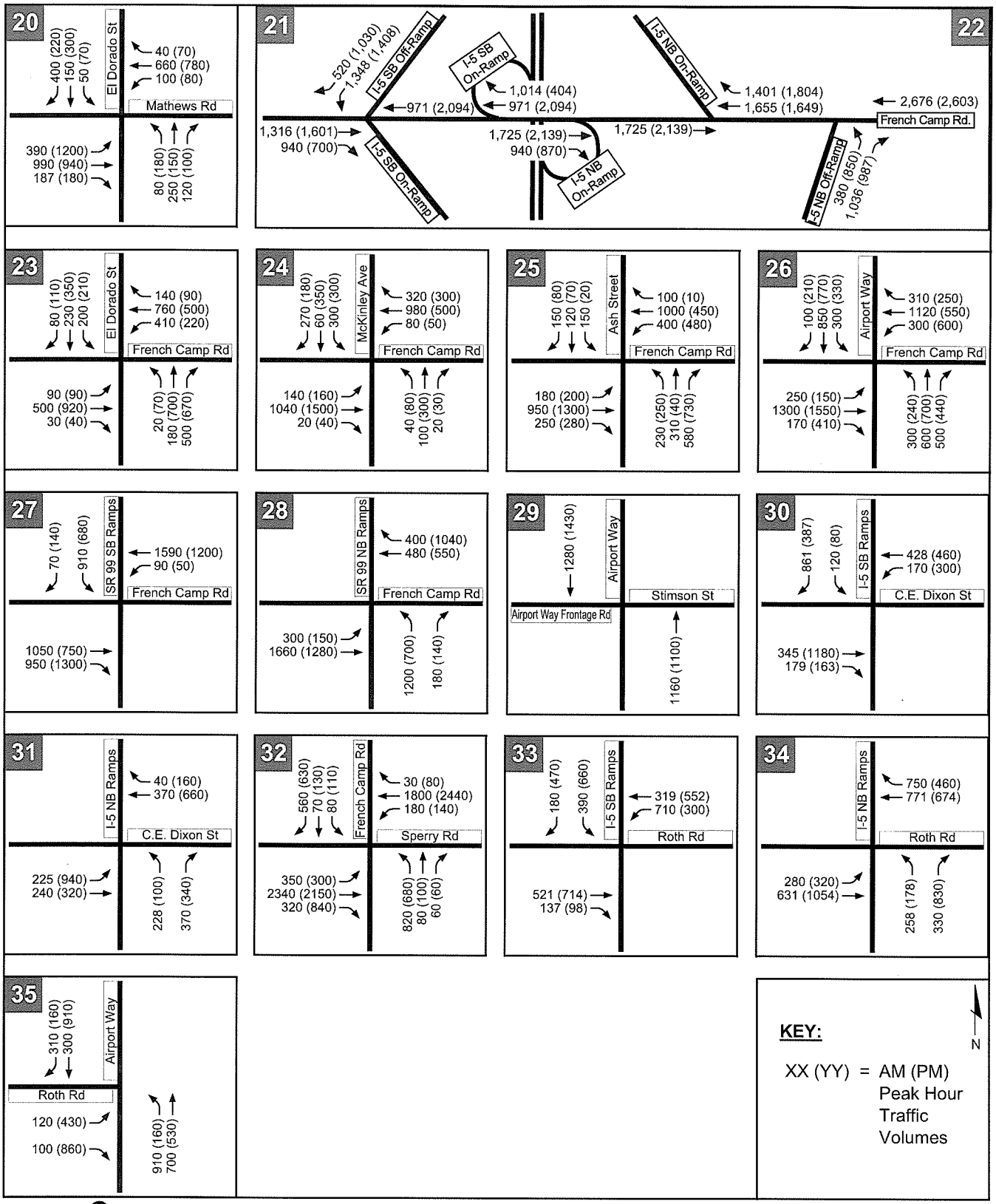
FUTURE (YEAR 2035) PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-20A

May 2008
Graphics\May08\WC05-2159_4.7-20A



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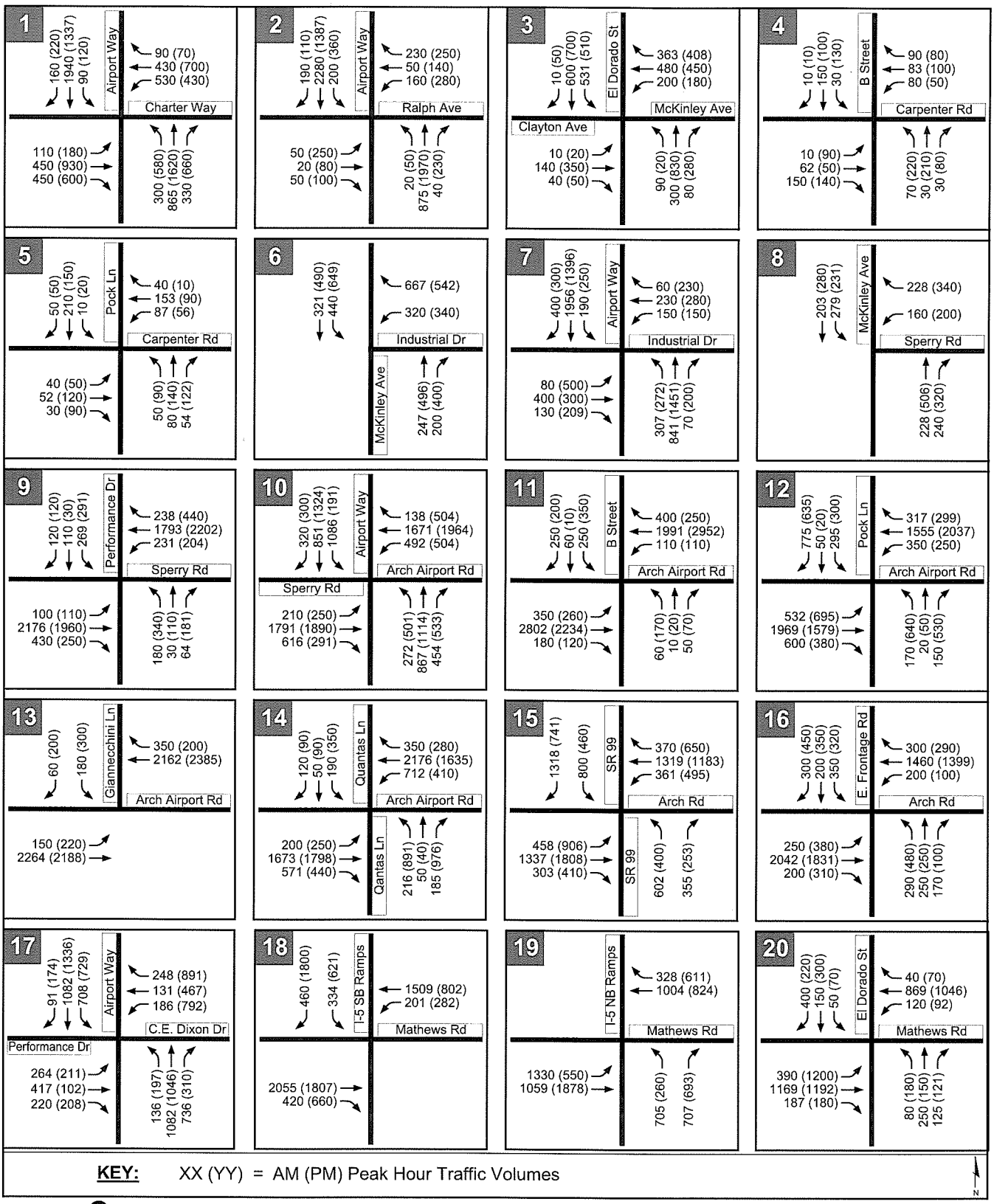
FUTURE (YEAR 2035) PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-20B

FIGURE 4.7-20B



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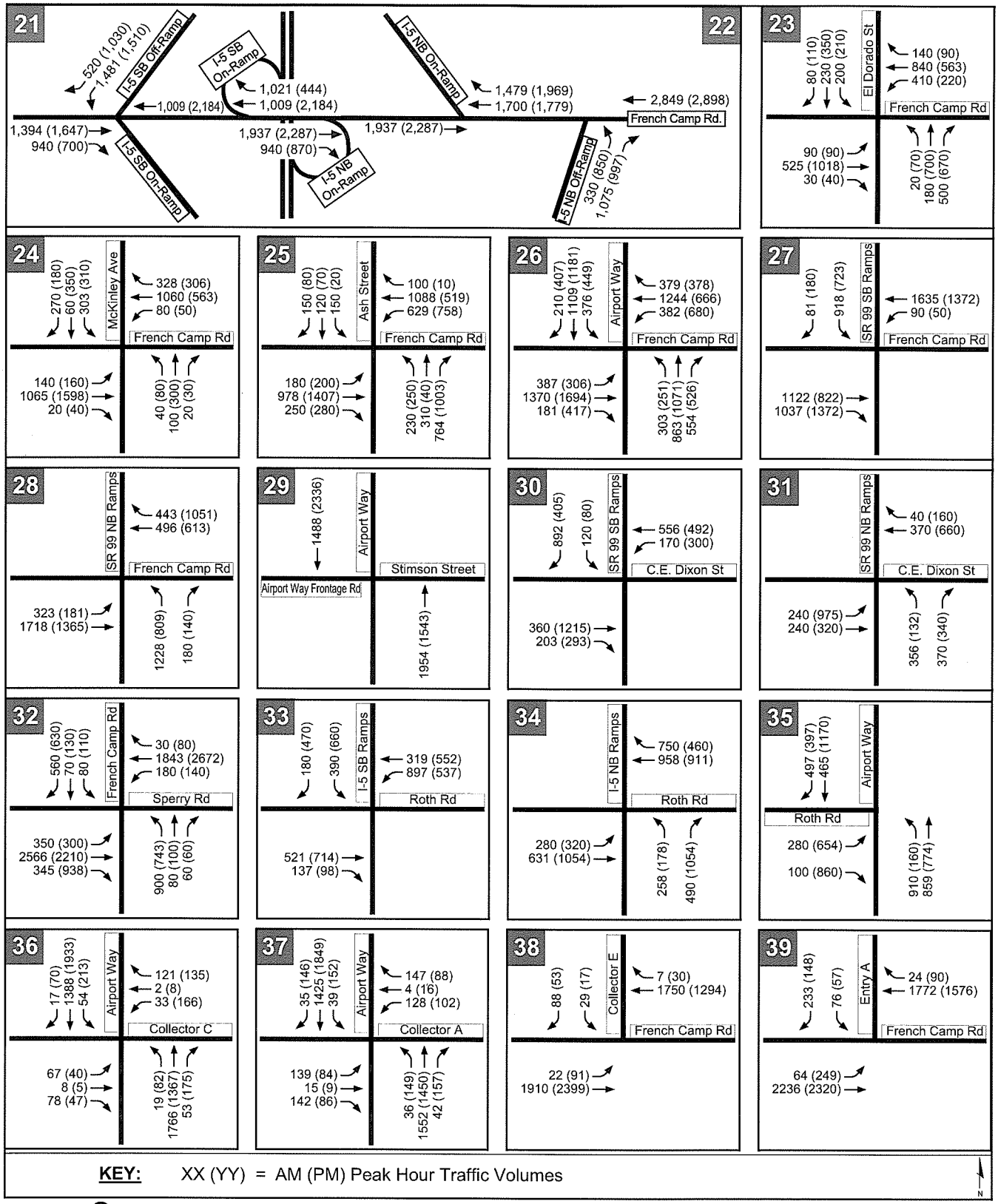
FUTURE (YEAR 2035) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-21A

FIGURE 4.7-21A



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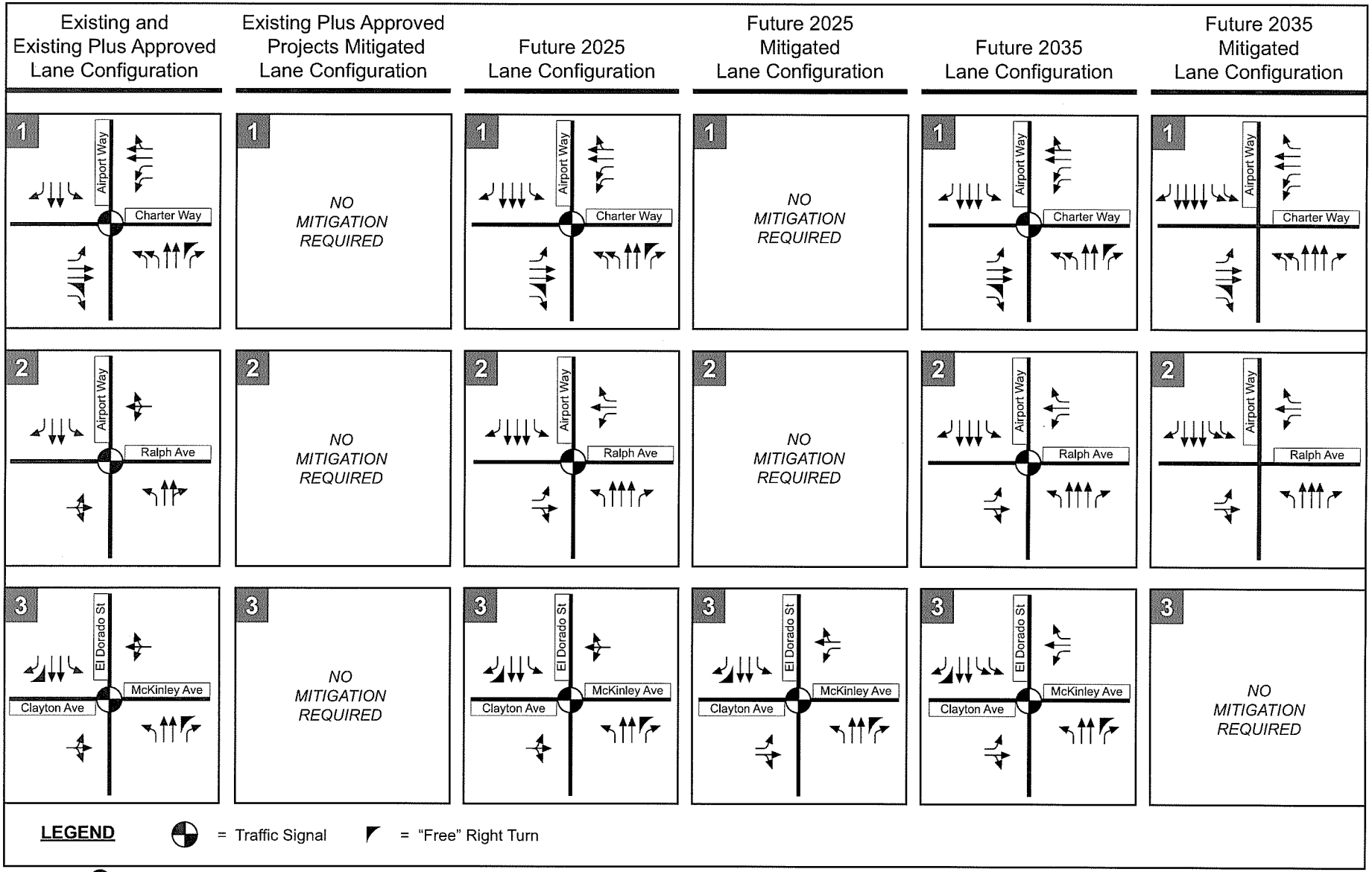
FUTURE (YEAR 2035) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

May 2008
Graphics\May08\WC05-2159_4.7-21B

FIGURE 4.7-21B



Tidewater Crossing Master Plan

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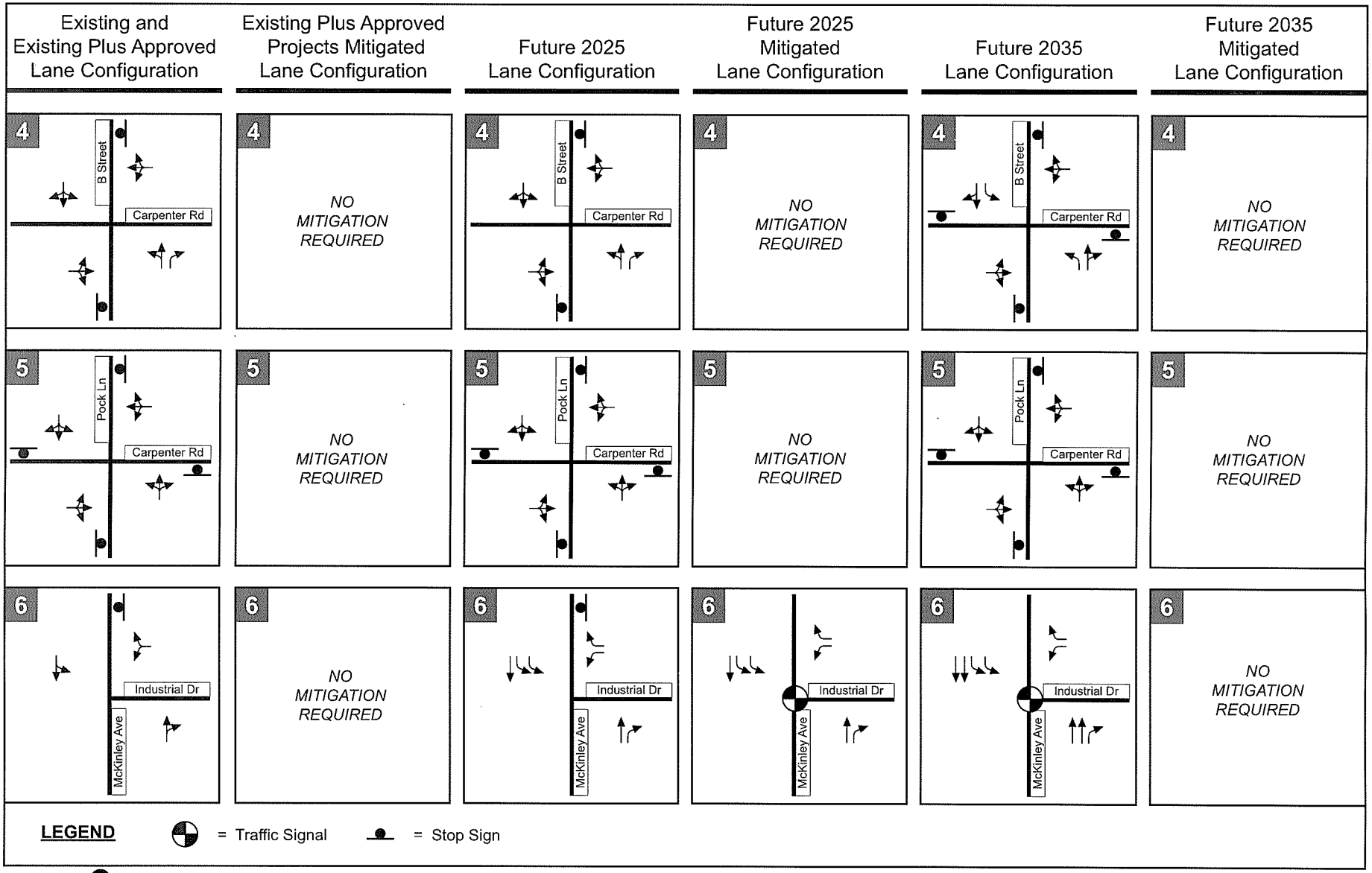
May 2008
Graphics\May08\WC05-2159_4.7-30A

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30A



Tidewater Crossing Master Plan

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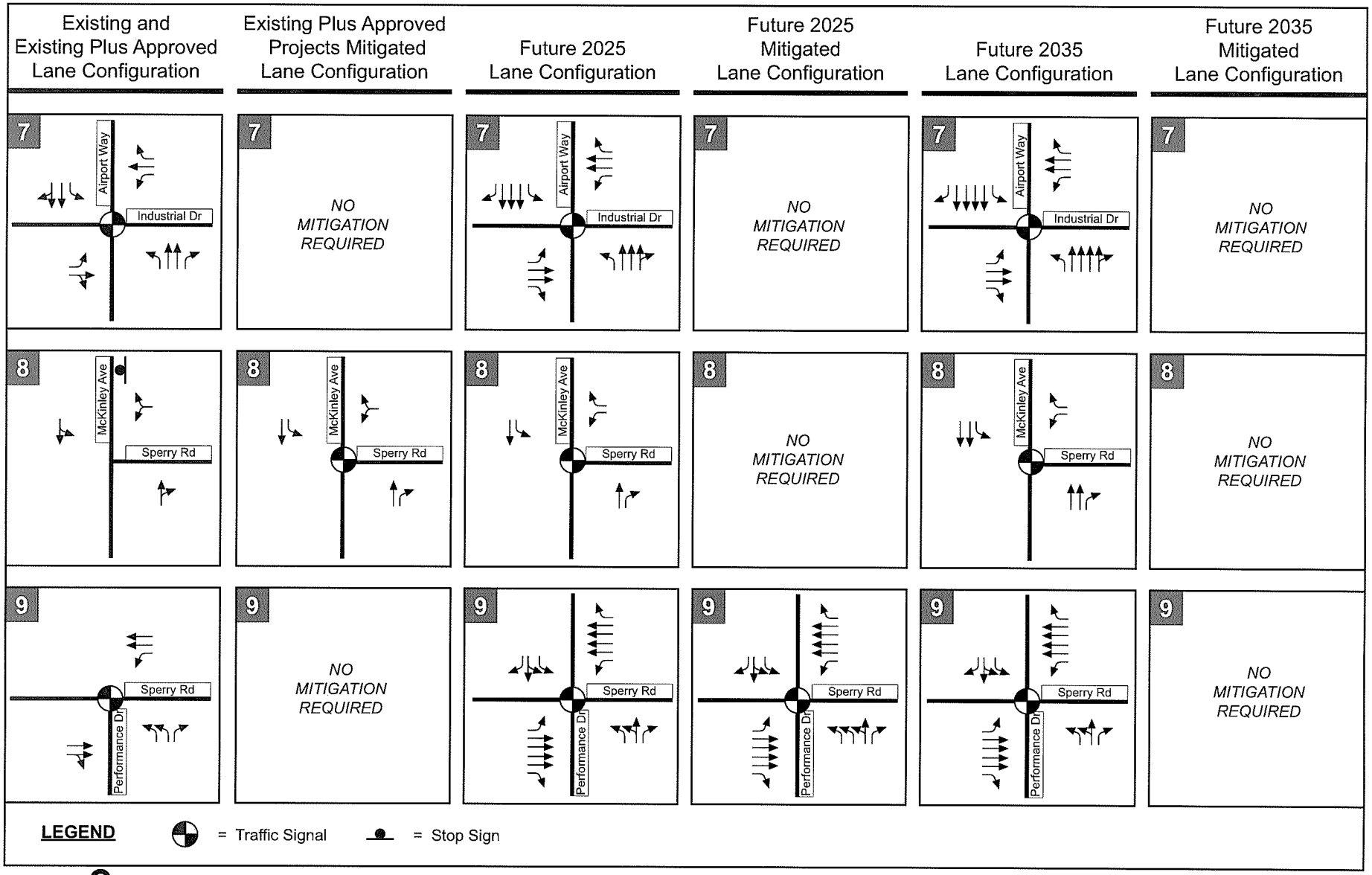
Graphics\May08\WC05-2159_4.7-30B

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30B



Tidewater Crossing Master Plan

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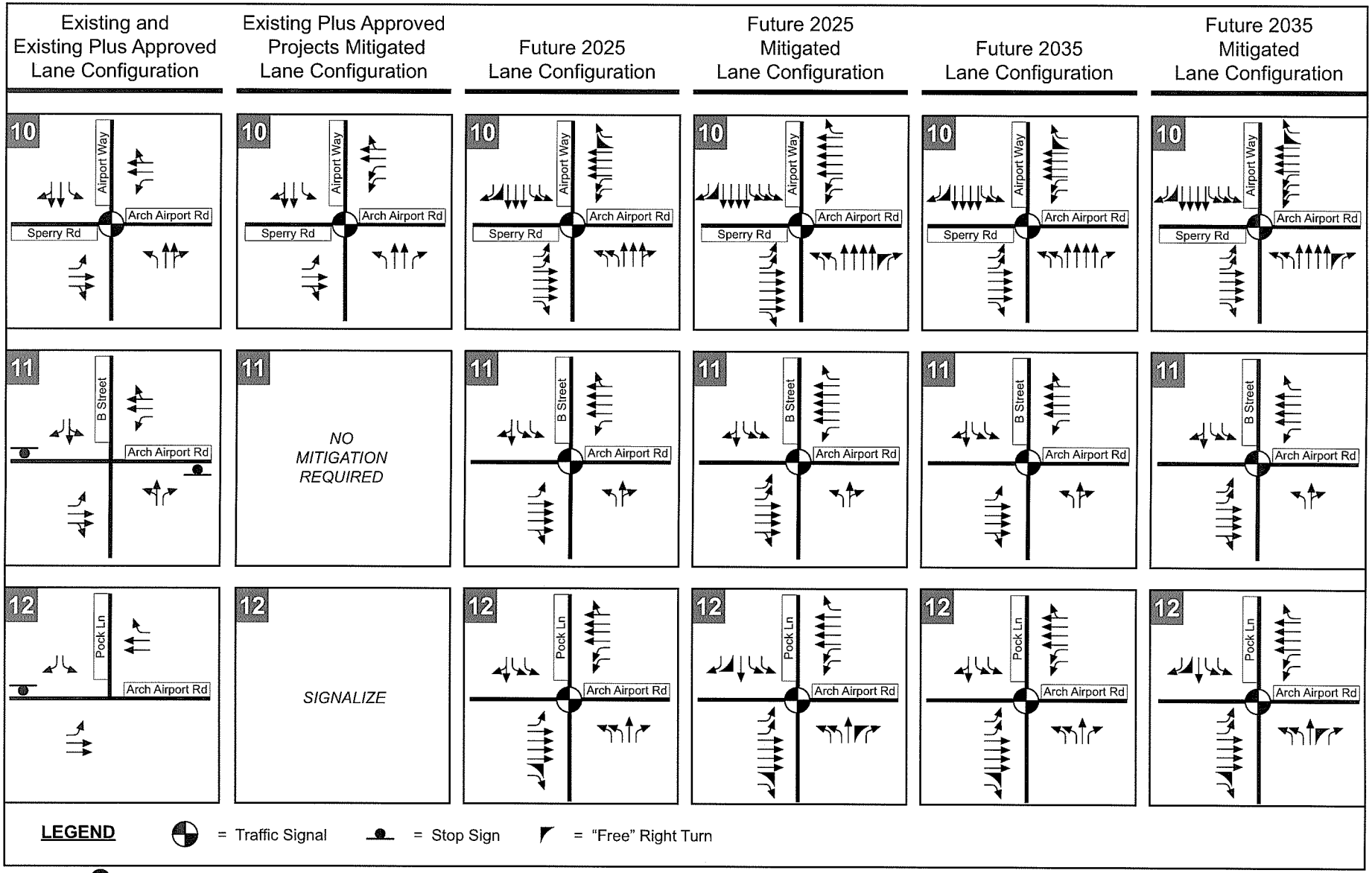
Graphics\May08\WC05-2159_4.7-30C

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30C



Tidewater Crossing Master Plan

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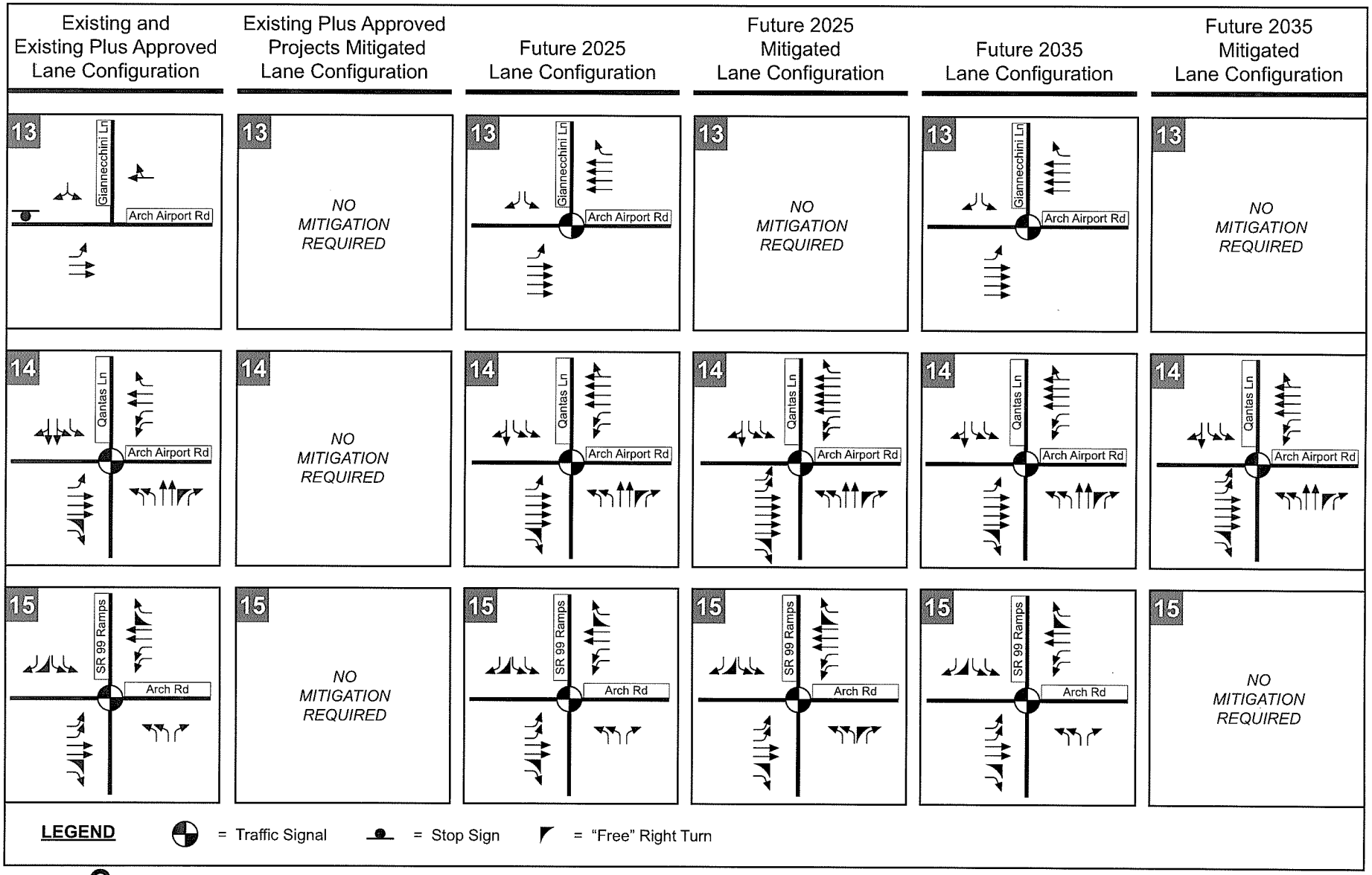
May 2008
Graphics\May08\WC05-2159_4.7-30D

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30D



Tidewater Crossing Master Plan

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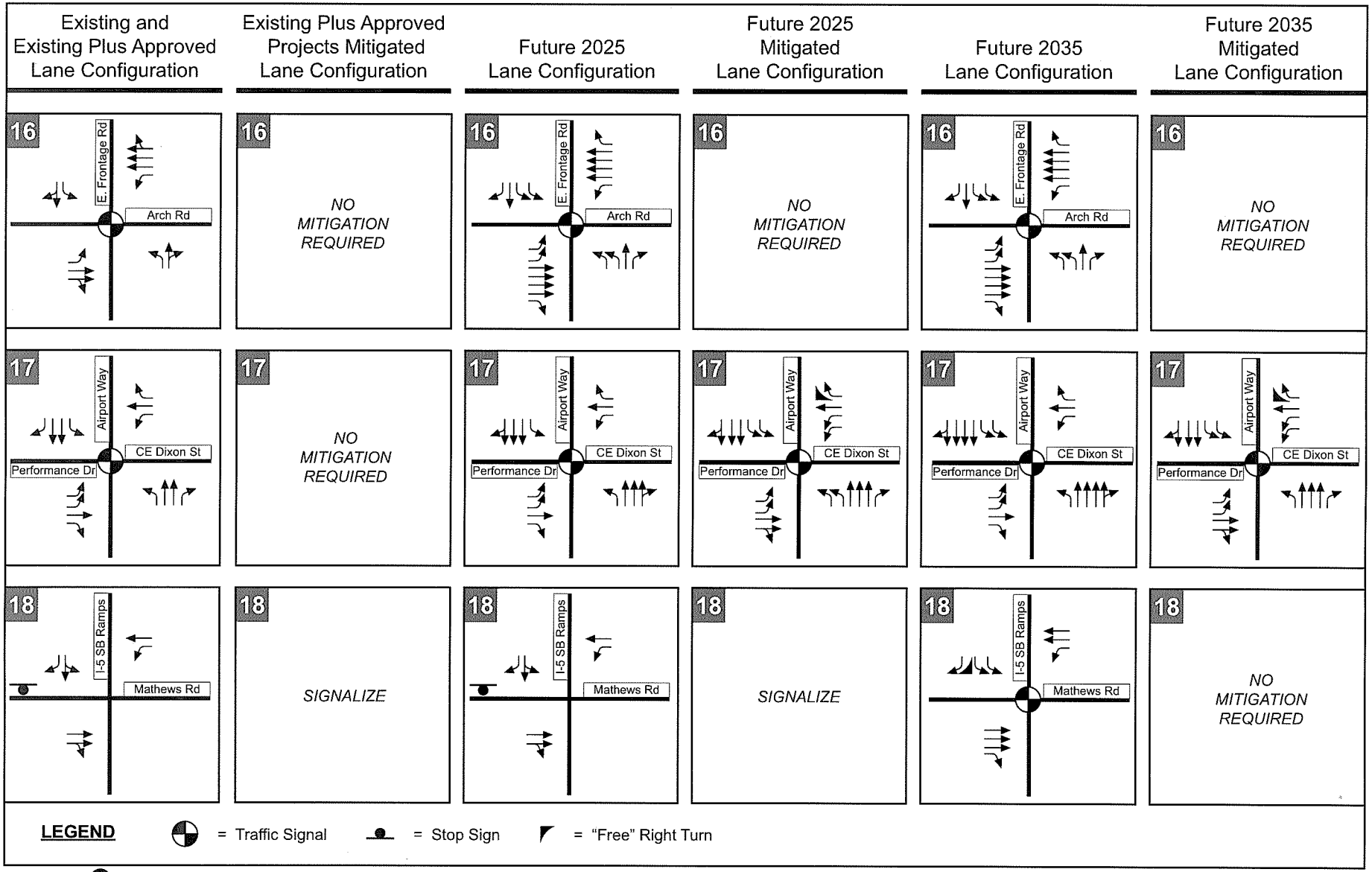
May 2008
Graphics\May08\WC05-2159_4.7-30E

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30E



Tidewater Crossing Master Plan

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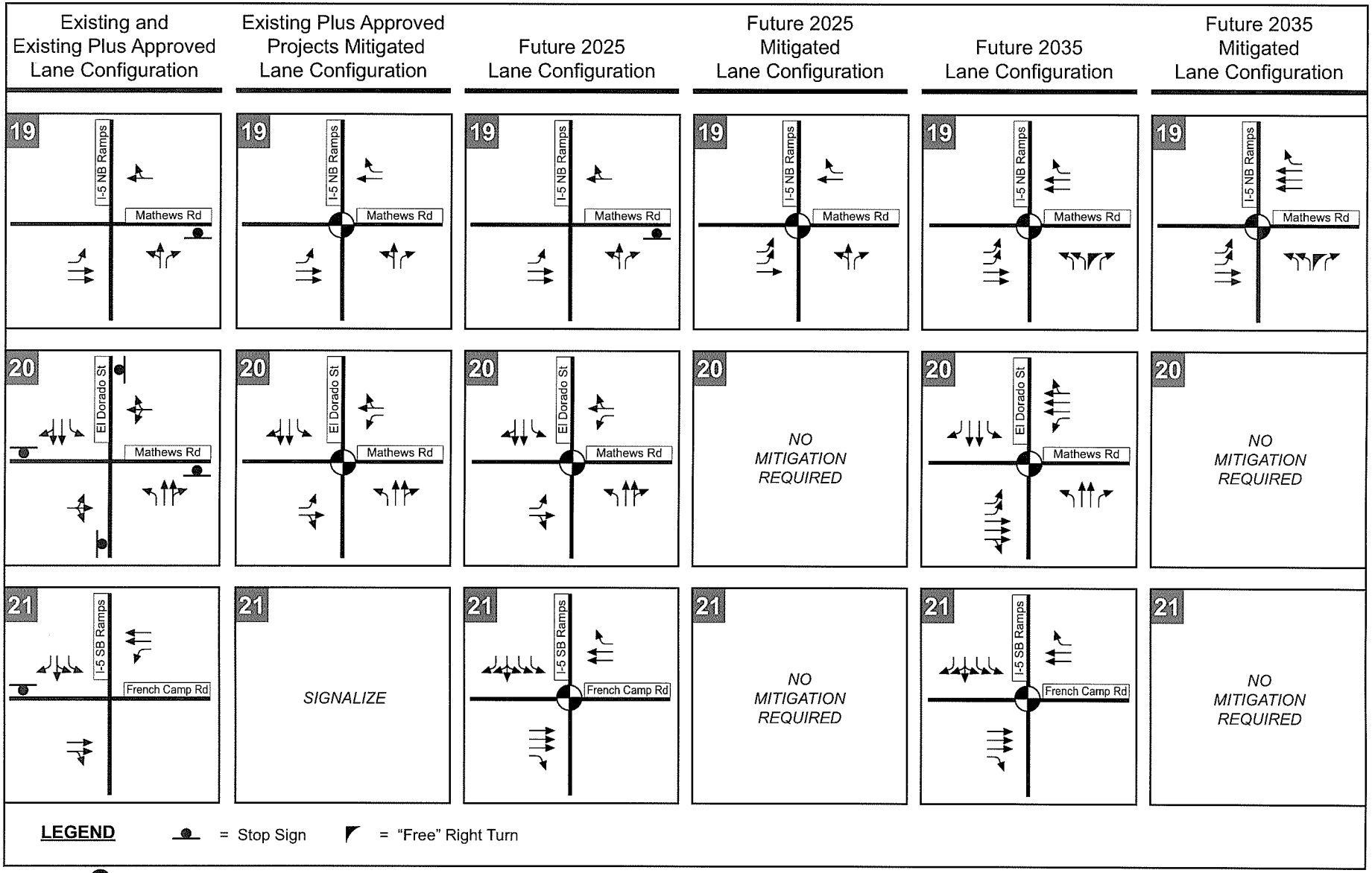
Graphics\May08\WC05-2159_4.7-30F

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30F



Tidewater Crossing Master Plan

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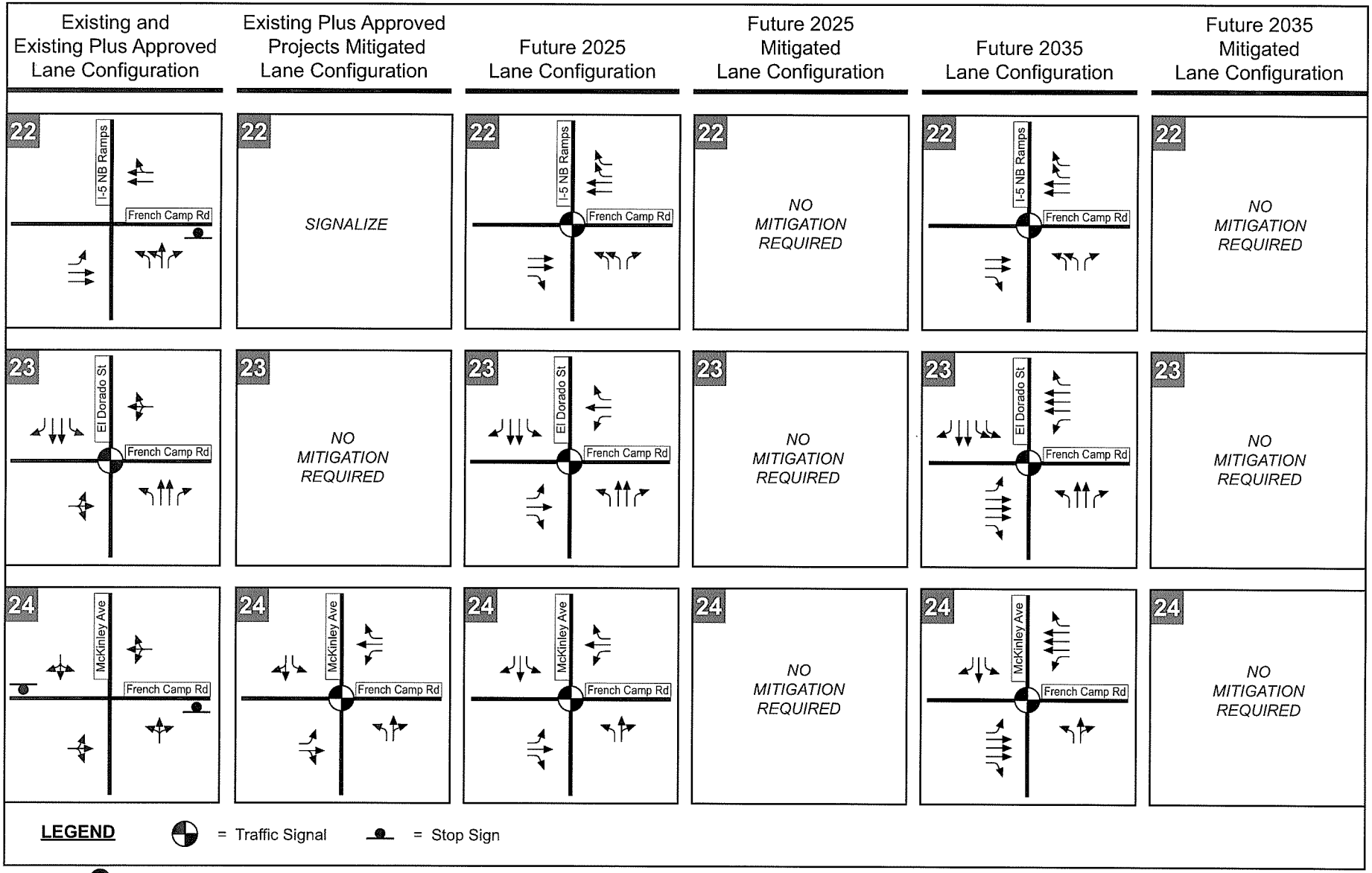
Graphics\May08\WC05-2159_4.7-30G

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30G



Tidewater Crossing Master Plan

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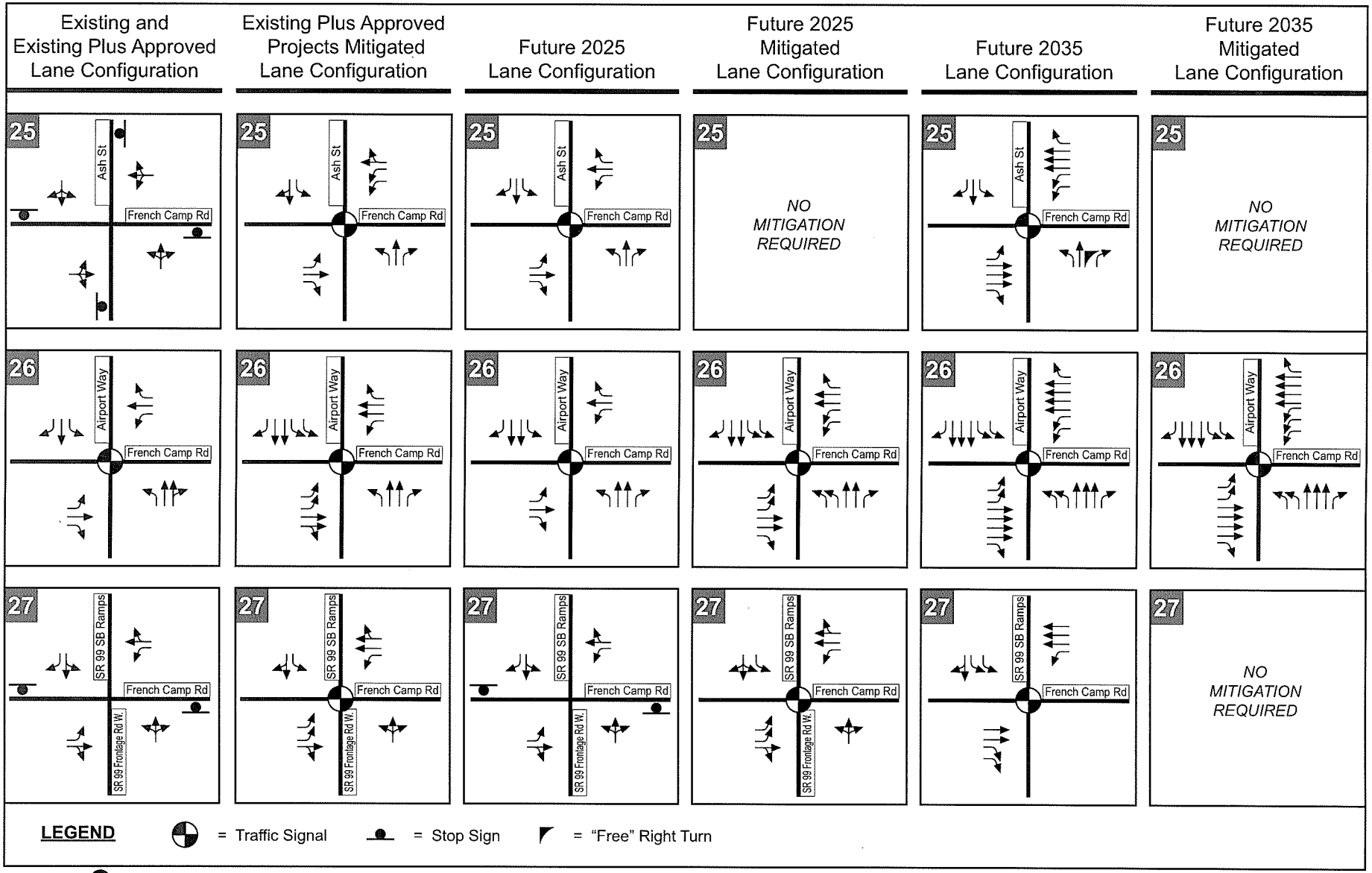
Graphics\May08\WC05-2159_4.7-30H

INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30H



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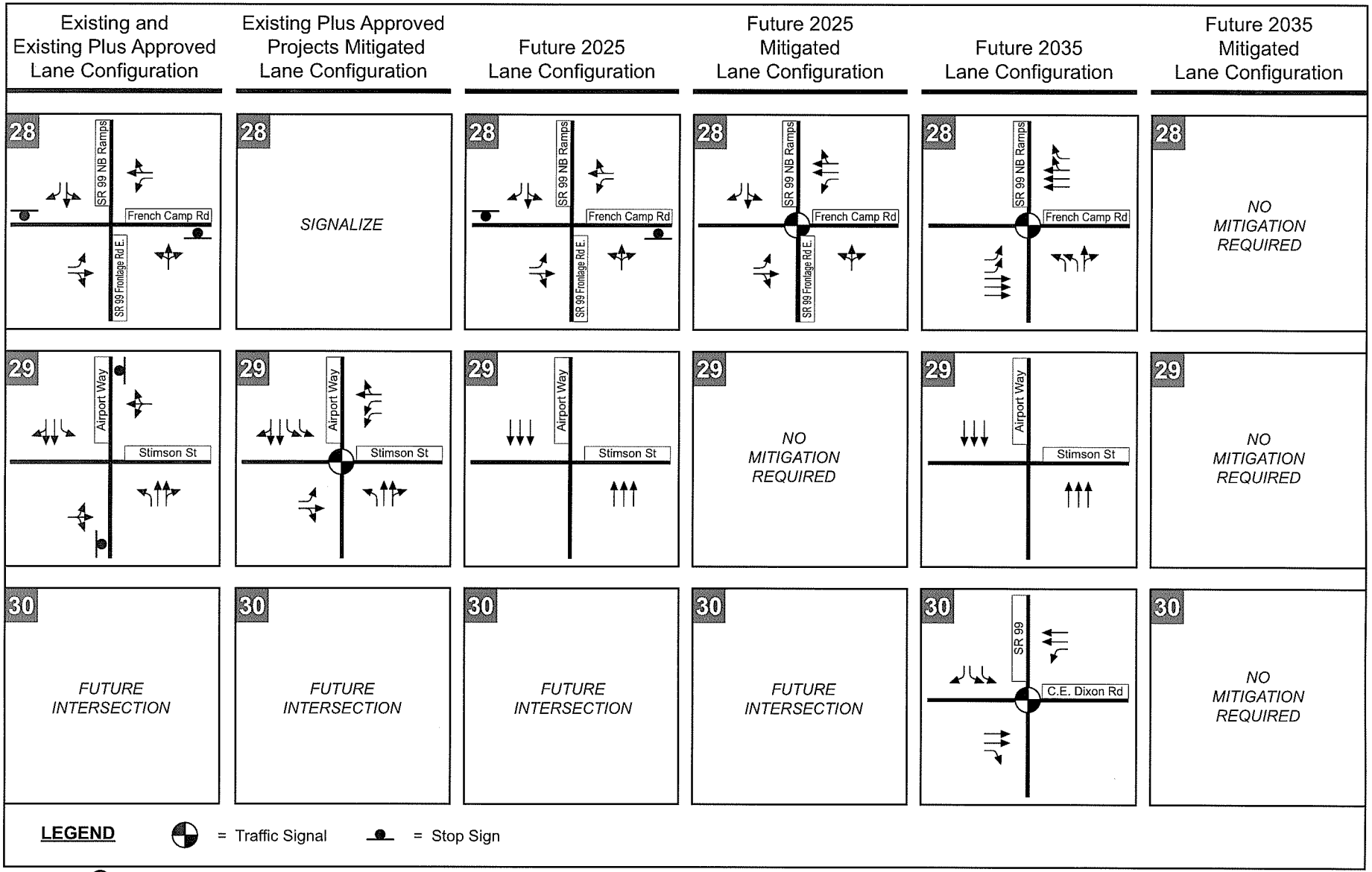
INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30I



Tidewater Crossing Master Plan

FEHR & PEERS
TRANSPORTATION CONSULTANTS

May 2008
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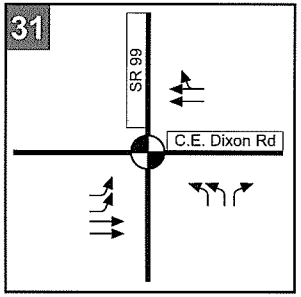
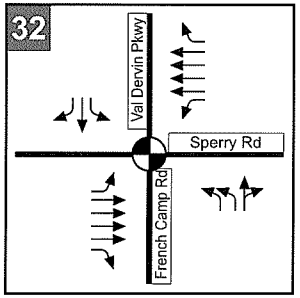
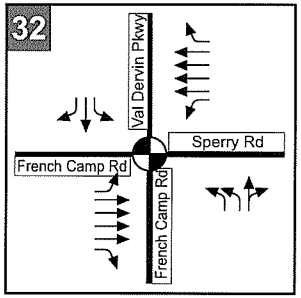
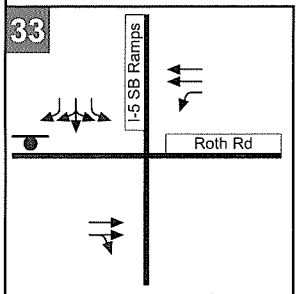
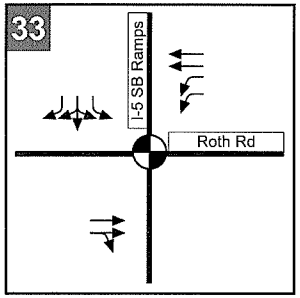
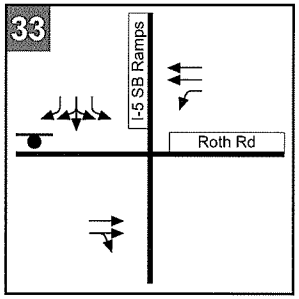
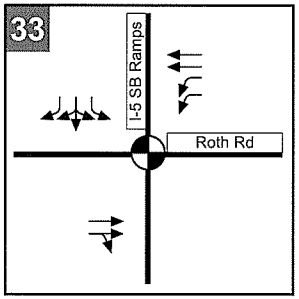
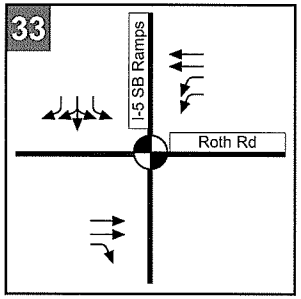
INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30J

Existing and Existing Plus Approved Lane Configuration	Existing Plus Approved Projects Mitigated Lane Configuration	Future 2025 Lane Configuration	Future 2025 Mitigated Lane Configuration	Future 2035 Lane Configuration	Future 2035 Mitigated Lane Configuration
31 *FUTURE INTERSECTION*	31 *FUTURE INTERSECTION*	31 *FUTURE INTERSECTION*	31 *FUTURE INTERSECTION*	31 	31 *NO MITIGATION REQUIRED*
32 *FUTURE INTERSECTION*	32 *FUTURE INTERSECTION*	32 	32 *NO FEASIBLE INTERIM IMPROVEMENTS IDENTIFIED*	32 	32 *NO MITIGATION REQUIRED*
33 	33 	33 	33 	33 	33 *NO MITIGATION REQUIRED*

LEGEND = Traffic Signal = Stop Sign

Tidewater Crossing Master Plan

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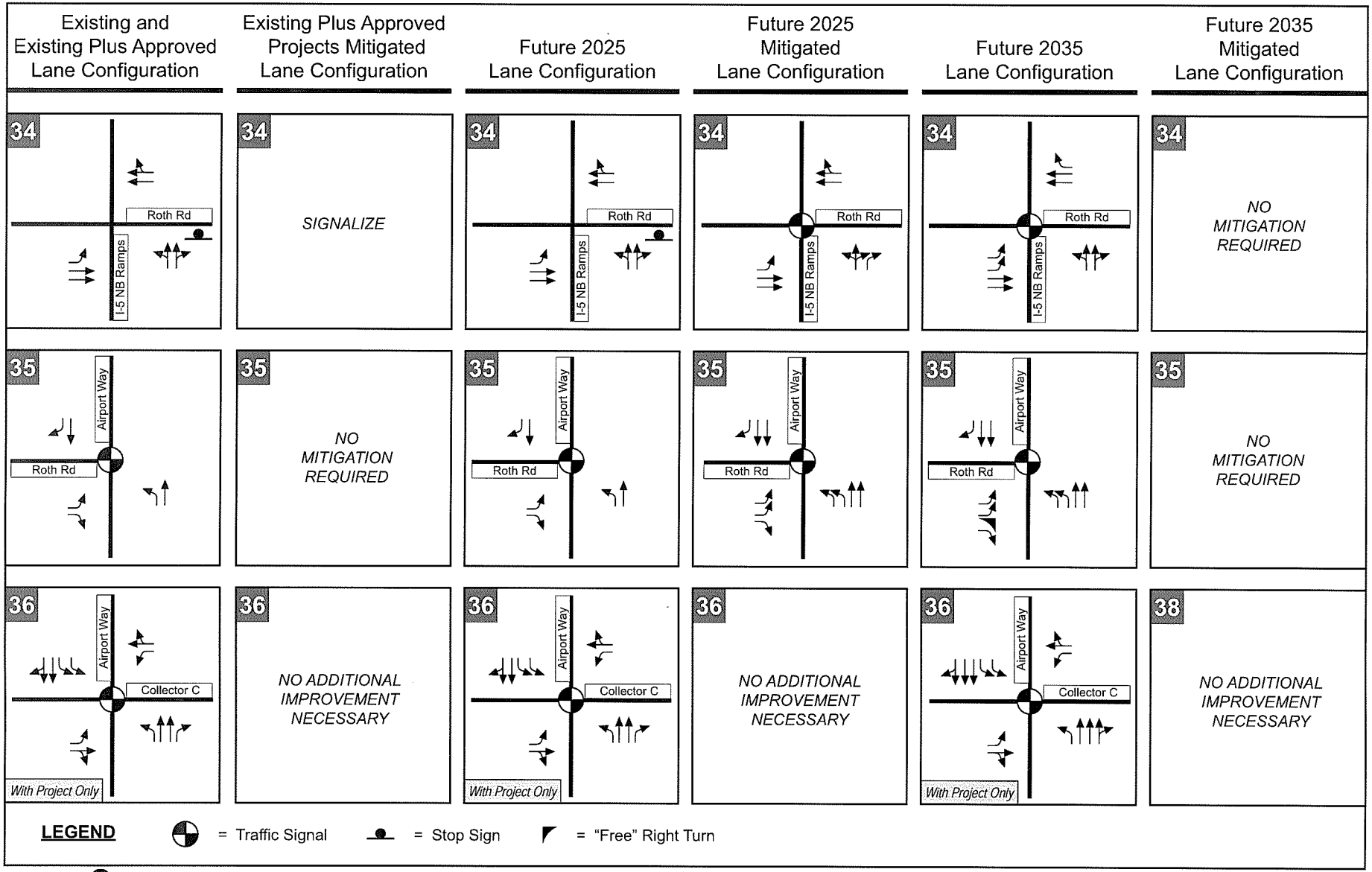
INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30K



Tidewater Crossing Master Plan

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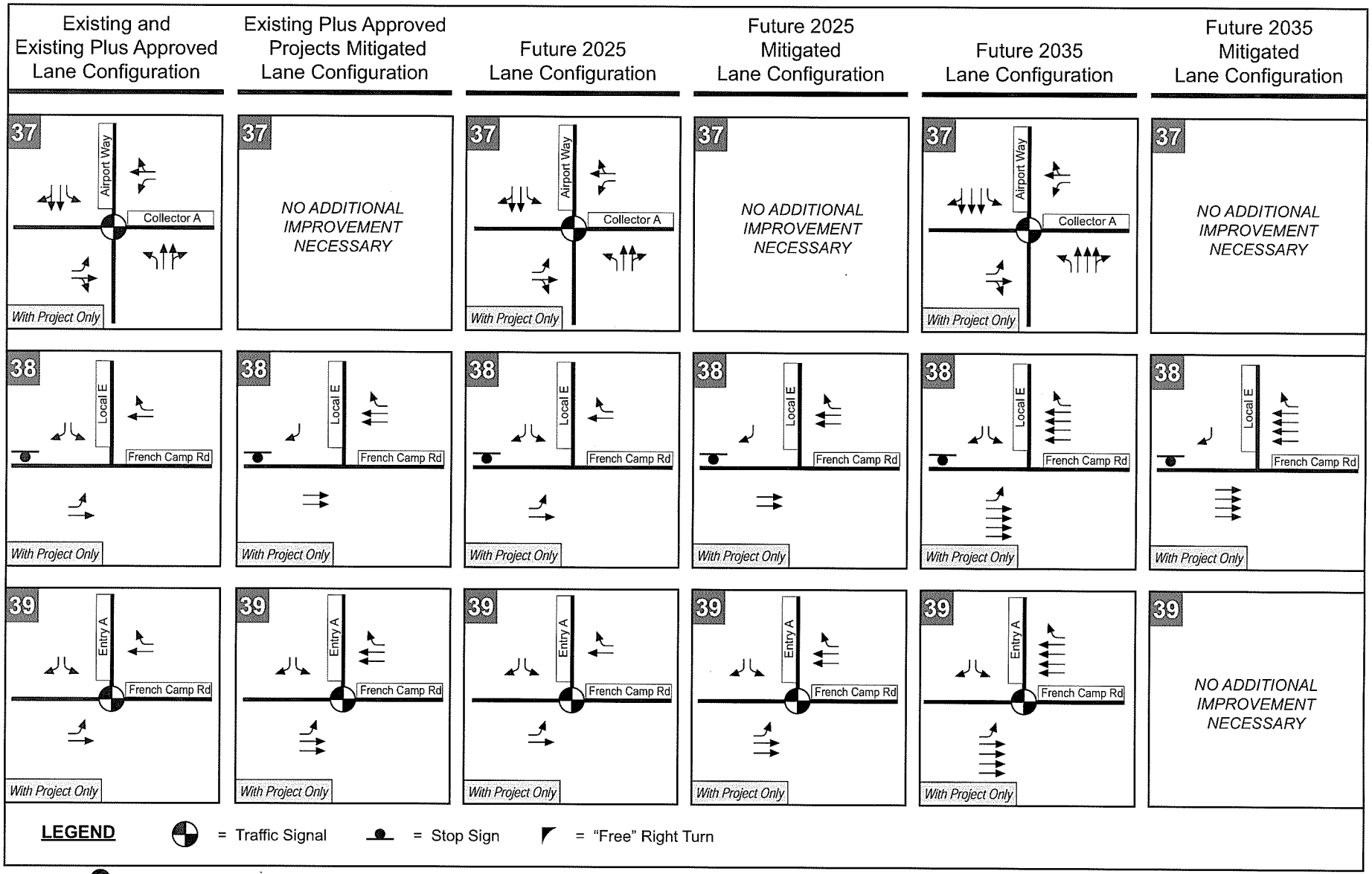
INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30L



Tidewater Crossing Master Plan

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INTERSECTION MITIGATION SUMMARY

FIGURE 4.7-30M

APPENDIX C

PERMIT FOR DIVERSION AND USE OF WATER

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

PERMIT FOR DIVERSION AND USE OF WATER

PERMIT 21176

Application 30531A of

City of Stockton
c/o Department of Municipal Utilities
2500 Navy Drive
Stockton, CA 95206-1191

filed on April 18, 1996, has been approved by the State Water Resources Control Board (State Water Board) SUBJECT TO PRIOR RIGHTS and to the limitations and conditions of this permit.

Permittee is hereby authorized to divert and use water as follows:

1. Source of water

Source:
San Joaquin River

Tributary to:
Sacramento-San Joaquin Delta

within the County of San Joaquin

2. Location of point of diversion

By California Coordinate System of 1927 in Zone 3	40-acre subdivision of public land survey or projection thereof	Section (Projected)	Township	Range	Base and Meridian
POD #1: N563,400 - E1,713,150	NE¼ of NE¼	11	2N	4E	MD

3. Purpose of use	4. Place of use	Section (Projected)*	Township	Range	Base and Meridian	Portions of C.M. Weber Grant with Place of Use boundaries and Township and Range
Municipal and Industrial	Portions of:	2, 12, 24, 36, 25	2N	5E	MD	None
	All of:	1	2N	5E	MD	
	Portions of:	1, 12	1N	5E	MD	None
	Portions of:	7, 13, 18, 21, 22, 23, 33	2N	6E	MD	All
	All of:	1-6, 8-12, 14-17, 19, 20, 29-32	2N	6E	MD	
	Portions of:	4, 15, 18, 27, 34, 21, 28, 33	1N	6E	MD	All
	All of:	5-9, 16, 17, 22	1N	6E	MD	
	Portions of:	3, 5, 9, 10	1S	6E	MD	All except portions of sections G and 3
	All of:	4	1S	6E	MD	
	Portions of:	4, 8, 9, 17, 18	2N	7E	MD	All except portions of sections 81-86, H, M, 93 and 94
	All of:	5, 6, 7	2N	7E	MD	
	Portions of:	1, 11, 12, 25, 26	1N	7E	MD	All except portions of sections M, 86, 93, and 94
	All of:	13, 14, 23, 24, 27, 28, 33, 34	1N	7E	MD	
	Portions of:	3, 4, 5, 8, 9, 10	1S	7E	MD	All except portions of sections O and 27
	All of:	None	1S	7E	MD	
	Total area within Place of Use = 81,441 acres					

The place of use is shown on map dated October 27, 1997 filed with the State Water Board.

5. The water appropriated shall be limited to the quantity, which can be beneficially used, and shall not exceed 317 cubic feet per second to be diverted from January 1 to December 31 of each year. The maximum amount diverted under this permit shall not exceed 33,600 acre-feet per year.

(0000005A)

6. Construction work of Delta Water Supply Project facilities developed under this permit: (a) the point of diversion (water intake site), (b) the raw water and treated water transmission pipelines, and (c) the 30 million gallon per day water treatment facility, shall be prosecuted with reasonable diligence and completed by December 31, 2015. Complete application of the water to the authorized uses under this permit shall be completed by December 31, 2020.

(0000009)

7. The amount authorized for appropriation may be reduced in the license if investigation warrants.

(0000006)

8. Progress reports shall be submitted promptly by permittee when requested by the SWRCB until a license is issued.

(0000010)

9. Permittee shall allow representatives of the SWRCB and other parties, as may be authorized from time to time by said SWRCB, reasonable access to project works to determine compliance with the terms of this permit.

(0000011)

10. Pursuant to California Water Code sections 100 and 275, and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of SWRCB in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the SWRCB may be exercised by imposing specific requirements over and above those contained in this permit with a view to eliminating waste of water and to meeting the reasonable water requirements of permittee without unreasonable draft on the source. Permittee may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the SWRCB determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the SWRCB also may be exercised by imposing further limitations on the diversion and use of water by the permittee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the SWRCB determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

(0000012)

11. The quantity of water diverted under this permit and under any license issued pursuant thereto is subject to modification by the SWRCB if, after notice to the permittee and an opportunity for hearing, the SWRCB finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the SWRCB finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges, which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(0000013)

12. This permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050 - 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531 - 1544). If a "take" will result from any act authorized under this water right, the permittee shall obtain authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this permit.

(0000014)

13. Permittee shall maintain records of the amount of water diverted and used to enable the State Water Resources Control Board to determine the amount of water that has been applied to beneficial use pursuant to Water Code Section 1605.

(0000015)

14. No work shall commence and no water shall be diverted, stored or used under this permit until a copy of a stream or lake alteration agreement between the State Department of Fish and Game and the permittee is filed with the Division of Water Rights. Compliance with the terms and conditions of the agreement is the responsibility of the permittee. If a stream or lake agreement is not necessary for this permitted project, the permittee shall provide the Division of Water Rights a copy of a waiver signed by the State Department of Fish and Game.

(0000063)

15. Permittee shall comply with the following conditions that are derived from the agreements and stipulations between permittee and the California Department of Water Resources, the United States Bureau of Reclamation, the San Joaquin River Group Authority, dated November 22, 2004, November 29, 2004, September 27, 2005, respectively, and filed with the State Water Resources Control Board:

    a. In order to ensure compliance with Water Code section 1485, the permittee shall conduct its diversions as follows:

        1. The permittee shall maintain records of (a) daily diversion of water from the Delta at its Delta Diversion Facility and (b) daily discharge of effluent to the Delta at its Regional Wastewater Control Facility.

        2. The 15-day running average of diversions from the Delta under this permit shall be less than or equal to the 15-day running average of discharges of properly treated effluent discharged from the Regional Wastewater Control Facility into the San Joaquin River. The term "properly treated effluent" means effluent that meets the requirements of the Central Valley Regional Water Quality Control Board.

        3. The permittee shall maintain weekly summary records of diversions, discharges and computations specified in paragraphs 15a.1 and 15a.2.

4. The permittee shall post on the World Wide Web (WWW) Internet for public monitoring purposes, within five (5) days of the diversion or discharge, the daily total amount of water in acre-feet diverted from the Delta at the permittee's diversion facility, the daily total amount of water in acre-feet of properly treated effluent discharged into the San Joaquin River from the permittee's Regional Wastewater Control Facility, and the weekly summary records specified in paragraph 15a.3.

Inclusion in this permit of certain provisions of the referenced agreements shall not be construed as disapproval of other provisions of the agreements or as affecting the enforceability, as between the parties, of such other provisions insofar as they are not inconsistent with the terms of this permit.

(0000024)

16. Permittee shall consult with the Division of Water Rights and, within one year from the date of this permit, shall submit to the State Water Resources Control Board its Urban Water Management Plan as prepared and adopted in conformance with section 10610, et seq. of the California Water Code, supplemented by any additional information that may be required by the Board.

All cost-effective measures identified in the Urban Water Management Plan and any supplements thereto shall be implemented in accordance with the schedule for implementation found therein.

(0000029A)

17. No water shall be used under this permit until permittee has filed a report of waste discharge with the California Regional Water Quality Control Board, Central Valley Region, pursuant to Water Code Section 13260, and the Regional Board or State Water Resources Control Board has prescribed waste discharge requirements or has indicated that waste discharge requirements are not required. Thereafter, water may be diverted only during such times as all requirements prescribed by the Regional Board or State Board are being met. No point source discharges of waste to surface water shall be made unless waste discharge requirements are issued by a Regional Board or the State Board. A discharge to ground water without issuance of a waste discharge requirement may be allowed if, after filing the report pursuant to Section 13260:

(1) the Regional Board issues a waiver pursuant to Section 13269, or
(2) the Regional Board fails to act within 120 days of the filing of the report.

No permittee shall be required to file a report of waste discharge pursuant to Section 13260 of the Water Code for percolation to ground water of water resulting from the irrigation of crops.

(0290101)

18. No water shall be diverted under this permit except through a fish screen on the intake to the diversion structure, designed to meet the California Department of Fish and Game (CDFG) and the National Marine Fisheries Service (NMFS) screening criteria to protect all life history stages of emigrating juvenile Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*) and Delta smelt (*Hypomesus transpacificus*). The screen will meet the following specifications:

- The screen will be oriented such that flow past the screen will be parallel to river flow.
- The screen will be designed so that a maximum uniform approach velocity of 0.2 feet per second as well as an adjustment for flow patterns will be provided across the face of the screen.

- The screen will be fitted with an automatic rotating brush or hydraulic screen cleaner that cleans the entire fish screen once every five minutes, while the diversion is in operation. Except during periods of tidal flow reversal, sweeping flow velocity will be at least twice the approach velocity.
- Screen openings will not exceed 1.75 millimeters with a minimum opening of 27 percent based on the salmonid fry criterion.
- The screen will be made of rigid, corrosion-resistant material with no sharp edges or projections (stainless-steel or copper-nickel alloy using wedge wire.)

(0000214)

19. No water shall be diverted until permittee has completed a monitoring and response plan for larval delta smelt (*Hypomesus transpacificus*). Monitoring for larval delta smelt will be conducted annually between February 15 and July 31 to detect the presence of larval delta smelt and trigger the implementation of the response plan, if necessary. The densities and geographic distribution of smelt will be used to identify those periods when larval delta smelt are not in the area and no operational changes are necessary. An annual monitoring and response report will be submitted to the Chief, Division of Water Rights by September 15.

    Permittee shall submit the monitoring and response plan to the CDFG, NMFS and United States Fish and Wildlife Service (USFWS) for review. Permittee shall submit evidence of the review and the completed response plan to the Chief, Division of Water Rights.

    In consultation with CDFG, permittee shall complete a census of larval delta smelt to determine the effectiveness of the response plan. If the response plan measures are not effective in protecting larval smelt from entrainment, permittee shall identify and develop alternative measures in cooperation with USFWS and CDFG. Permittee shall submit evidence of the effectiveness of the response plan or the alternative measures to the Chief, Division of Water Rights. Permittee shall be responsible for the construction, operation, and maintenance of the required facility.

    Permittee shall mitigate for the impacts of the project to special-status species identified in the FEIR. Permittee may either submit to the Chief, Division of Water Rights, evidence that the Project is approved for participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and comply with the requirements under that program, or permittee may obtain the necessary individual permits from the appropriate regulatory agency (CDFG or USFWS). Evidence of regulatory agency review will be submitted to the Chief, Division of Water Rights.

20. The State Water Board reserves jurisdiction to amend this permit, after notice and opportunity for hearing, to reduce the maximum amount authorized to be diverted or require other appropriate action if the State Water Board receives new substantial evidence showing that, due to the diversion of water under this permit, the SWP or the federal CVP is required to forego exports from the southern Delta or release from upstream storage additional water to meet salinity objectives in the Delta compared with the amount of water that the SWP or the federal CVP would have to forego exporting or release from upstream storage for salinity control in the absence of diversions under this permit.

21. In accordance with Public Resources Code, section 21167.3, the City is authorized under this permit to proceed with the project at the City's risk.

This permit is issued and permittee takes it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefore shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

STATE WATER RESOURCES CONTROL BOARD

for James W. Kassel
Victoria A. Whitney, Chief
Division of Water Rights

Dated: March 8, 2006

APPENDIX D

TECHNICAL BRIEFING PAPER ON GROUNDWATER USE IN JOAQUIN SUB-BASIN

Technical Briefing Paper on Groundwater Use in San Joaquin Sub-Basin

Completed for: City of Stockton Municipal Utilities Department

Completed by: Jonathan Goetz, Civil Engineer
MWH Americas

Evaluating changes in aquifer conditions requires an understanding of the dynamic processes and interactions that are taking place as extractions and recharge of the aquifer occur. Conceptual models of the aquifer that describe natural and induced recharge, aquifer storage, and regional effects on the aquifer due to groundwater extractions are discussed below.

Groundwater Recharge -

Groundwater in the San Joaquin sub-basin moves from sources of recharge to areas of discharge. Recharge to the local aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the Mokelumne River, the San Joaquin River, the Stanislaus River, and the California Delta. Additional recharge occurs along the eastern boundary of San Joaquin County at the transition point from the consolidated rocks of the Sierra Nevada to the alluvial deposited basin sediments. This typically occurs through fractured granitic rock that makes up the Sierra Nevada foothills. This is classified as subsurface recharge along with underground movement of water into and out of the groundwater basin with adjacent groundwater basins (e.g., groundwater movement from one sub-basin to an adjacent sub-basin). Other sources of recharge within the area include deep percolation from applied surface water and precipitation. Induced recharge can occur from reservoirs, recharge basins and by direct injection of water through aquifer storage and recovery (ASR) wells. The amount of natural recharge becomes important in the categorization of the groundwater basin being in a state of overdraft where groundwater extractions exceed the rate of natural recharge, or in a state of equilibrium where natural recharge rates roughly equal the amount of the groundwater extractions.

Changes in the groundwater surface elevation (or piezometric surface) result from changes in groundwater extractions which can induce natural recharge at locations where rivers or streams and the aquifer are hydraulically connected. To the extent that a hydraulic connection exists, as groundwater conditions change, the slope or gradient of the groundwater surface may change as well. Similar to the increase in the slope of a road increasing the speed of an automobile, a steeper gradient away from the river (i.e., recharge source) induces higher recharge rates from surface water sources into the aquifer.

The rate of recharge from streams or rivers that are hydraulically disconnected from the groundwater surface is indifferent to changes in groundwater elevations or gradient. This is typically true with smaller streams where the groundwater surface is located far below the streambed. In such cases, surface water percolates through the unsaturated zone to the groundwater and its rate is a function of the aquifer materials underlying the streambed and the water level in the surface stream. The rate of infiltration under these conditions is not controlled by the change in elevation of the underlying groundwater.

For the most part, in the case of larger rivers, the San Joaquin and Mokelumne Rivers are considered to be hydraulically connected and smaller rivers such as the Calaveras River are considered to be hydraulically disconnected in the lower reaches of the river that flow through the San Joaquin sub-basin. There are reaches of the larger river that may be hydraulically disconnected. The COSMA recognizes the importance of improving and maintaining hydraulic connections with the river sources for sustainability of the groundwater supply and the environmental benefits of keeping water flowing in the riverbed. If the hydraulic connection between the active aquifer and its recharge sources were severed, overdraft would continue until the aquifer essentially dries up.

Overdraft of an aquifer occurs when groundwater extractions exceed the natural rate of recharge from the various recharge sources. In the early 1950's, the San Joaquin Sub-basin experienced a period of overdraft as groundwater extractions exceeded the natural recharge rate. In the case of the San Joaquin Sub-basin, the natural recharge sources from the Mokelumne, Stanislaus and San Joaquin Rivers (and smaller rivers) increased as a result of the increased rate of extractions. As a result, a cone of depression developed that served to steepen gradients from the hydraulically connected recharge sources. Today the San Joaquin sub-

basin is no longer falling because of the new state of the aquifer being in equilibrium; especially, recharge sources are roughly equivalent to the rate of groundwater extraction.

Large regional cones of depression can form in areas where multiple groundwater extraction wells are in operation. These wells are operated for agricultural, rural residential, and municipal uses. The regional cone of depression within the San Joaquin Sub-basin is shown in the figure below, as part of a water elevation contour map for fall of 2005. This map was prepared using water elevation data from DWR's groundwater data library available on-line at: http://wdl.water.ca.gov.

Fluctuations in the regional cone of depression are measured over years and result from: (1) changes in recharge, and (2) changes in extractions from increasing and decreasing water demands. For example, a sequence of successive dry years can decrease the amount of natural recharge to the aquifer. If this is coupled with a coinciding increase in groundwater extractions, an imbalance is created between natural recharge and extractions. Consequently, groundwater elevations would decrease in response to this imbalance. Over time, the shape and location of the aquifer's regional cone of depression fluctuates.

When managed correctly, a hydraulically connected groundwater basin is expected to undergo a general lowering of groundwater elevations near the center (or centroid) of the basin away from the sources of recharge during dry periods when there is generally less natural recharge and increased groundwater extractions. Through implementation of conjunctive use programs, the groundwater elevations and depth of the regional cone of depression can be managed to recover to pre-drought (or better) conditions. The shape and elevation of the cone of depression are monitored to establish if recovery takes place to a pre-drought condition after a series of above average and normal hydrologic years. A cone of depression that recovers to pre-drought conditions is considered to be within a groundwater aquifer that is in a state of equilibrium.

Based on the available groundwater elevation data, the San Joaquin Sub-basin has shown to exhibit the characteristics of a basin that is responsive to changes in hydrology and groundwater use and can be relied upon as a firm long term reliable supply. The monitoring of groundwater elevations, completed a minimum of twice a year, shows the recovery and stabilization of the aquifer underlying the COSMA and adjacent areas over the past 10 years.

The available DWR groundwater elevation data (average of fall months) has been used to create the contour maps included as Appendix A. These maps show groundwater elevation contours and the location and shape of the cone of depression over a 35 year period in 5 year increments. The maps are intended only to illustrate the natural behavior of the aquifer (i.e., groundwater elevation data is assumed to be from a single unconfined aquifer). The cone of depression in 1970 was centered slightly north and east of the City of Stockton at a bottom elevation of -60 feet mean sea level (msl). By 1975, the size of the cone increased and the bottom elevation decreased to -70 feet msl. It was at this time that SEWD was formed and the first measures to stem the declining groundwater elevations were implemented. In 1980, groundwater elevations increased slightly, the shape of the cone of depression becoming less pronounced and moving slightly to the east. As a result of several years of above normal hydrologic conditions and the combined efforts of SEWD, its agricultural partners, and Stockton's three retail water purveyors to import surface water, by 1985, groundwater elevations increased significantly bringing elevations in the pre-existing cone of depression up to -40 feet msl. The 1985 contour map is the first indication that the aquifer reached a stabilized condition and could be managed under a conjunctive use program.

The drought of the late 1980's and early 1990's increased dependency on groundwater and reduced natural recharge from rivers and streams. As a result, groundwater elevations for 1990 and 1995 decreased to -60 feet msl with the center of the cone of depression moving slightly east. Contour elevations in 2000 show further improvement in the greater City of Stockton area as a result of surface water transfers and increased SEWD deliveries to the COSMA. The pronounced cone of depression to the east is believed to be the result of significant agricultural-related activity that took place during a short timeframe. Pumping on the east side, as illustrated in the 2000 contour map, can drastically affect east side groundwater elevations within a short time period because of the relative distance from the primary recharge sources and the reduced thickness in the aquifer with the rising up of fractured rock found in the Sierra Foothills. This results in the possible dewatering of the aquifer along the eastern fringe of the sub-basin until extractions are reduced to once again achieve a desired balance with the recharge sources. We can only conclude that the City's actions help to reduce the impact from east side pumping on the west side. The City's actions

may also accelerate recovery of the east side aquifer once east side pumping is curtailed but it cannot change how the east side aquifer behaves under a stressful condition.

As a result of increased surface water supplies, by 2005, groundwater elevations increased to -40 feet msl and the cone of depression migrated further north and east of the City of Stockton where the majority of agricultural groundwater extractions are likely taking place. The pronounced cone of depression in the east is no longer evident indicating that groundwater extractions were reduced or surface water was used in-lieu of groundwater.

Impacts related to groundwater quantity and quality in geographic areas around the City of Stockton can be illustrated by a difference contour map to show the location of groundwater changes and the volumetric storage that takes place as a result of these changes. The difference contour map between 2005 (present day) and 1990 (historical low) illustrates that groundwater elevations have increased approximately 10 feet in the City of Stockton to as much as 30 feet in the rural areas located immediately east of the COSMA.

Figure A-1. Fall 1970 Groundwater Contours

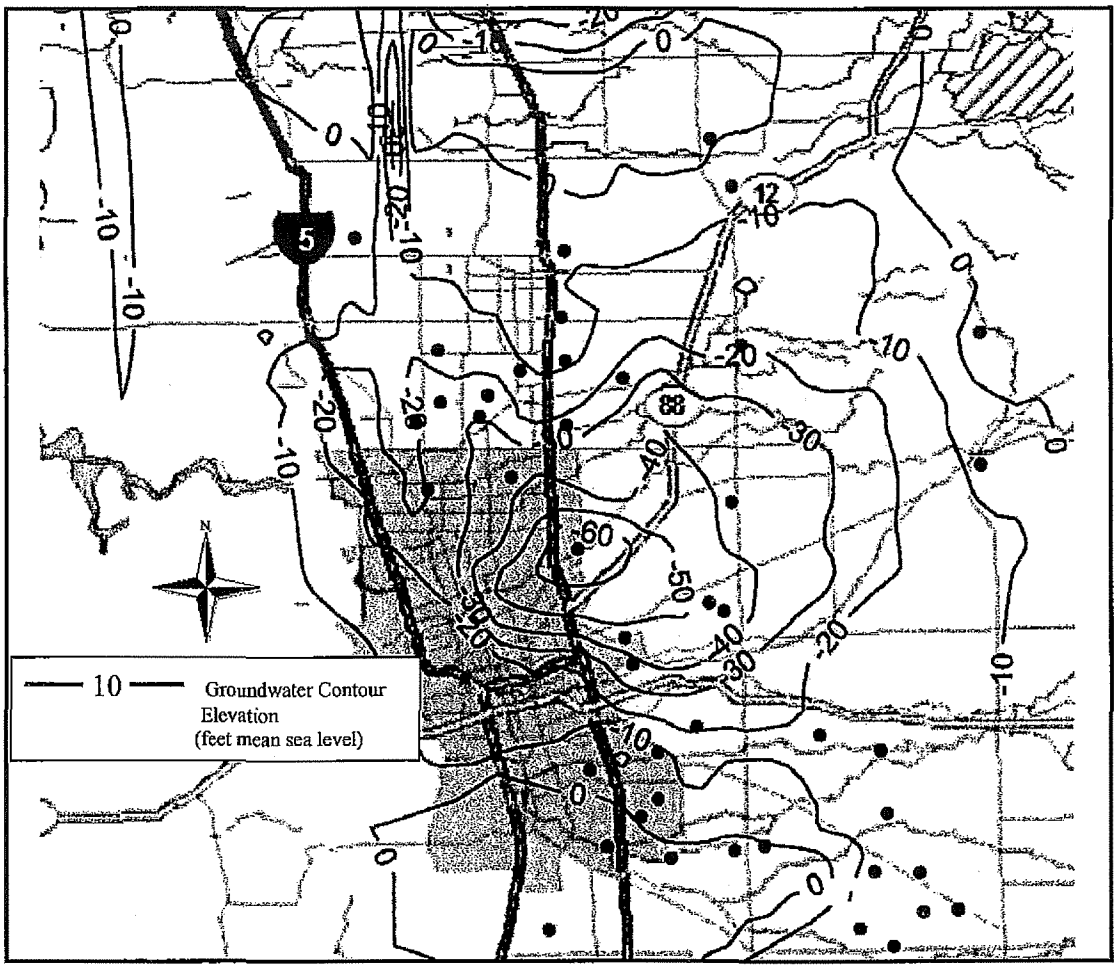


Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-2. Fall 1975 Groundwater Contours

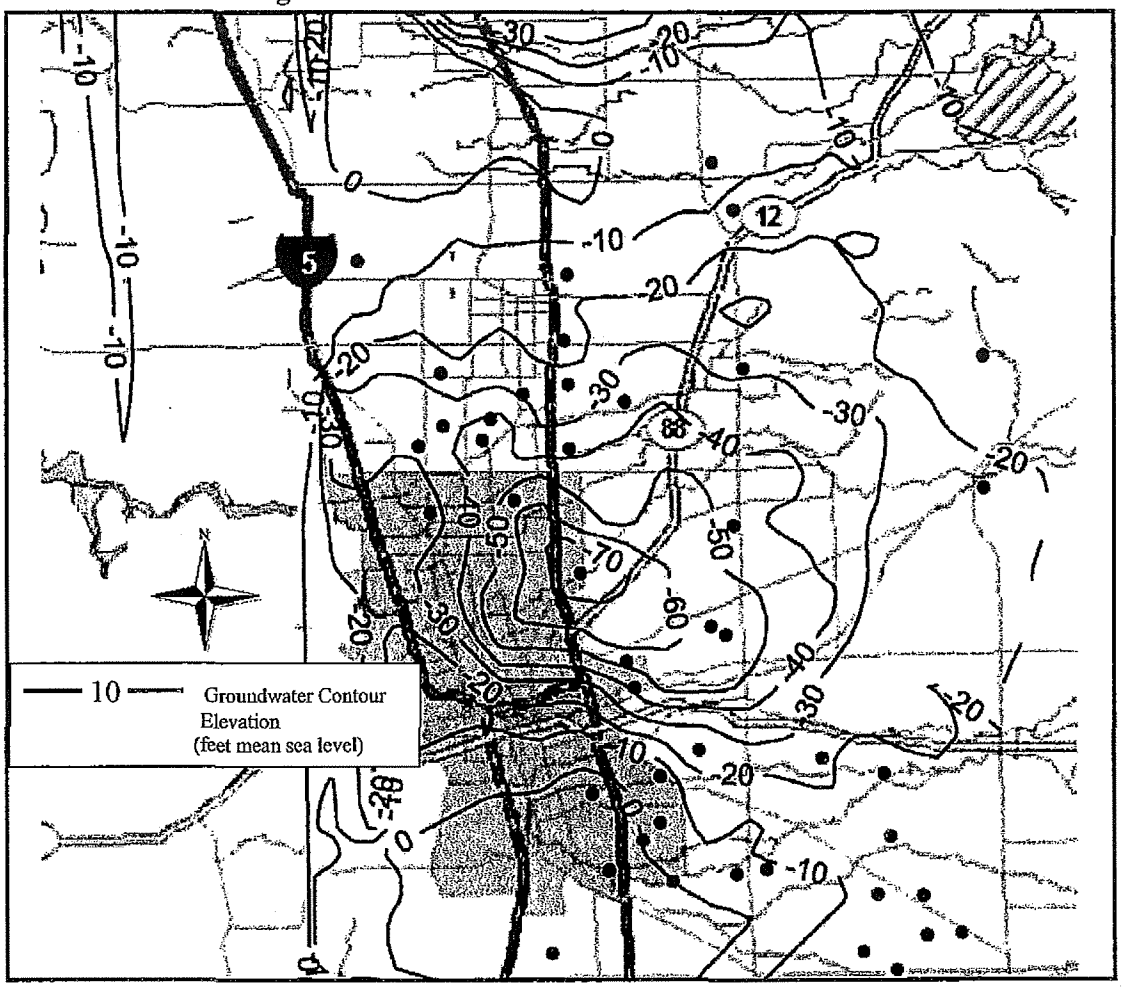


Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-3. Fall 1980 Groundwater Contours

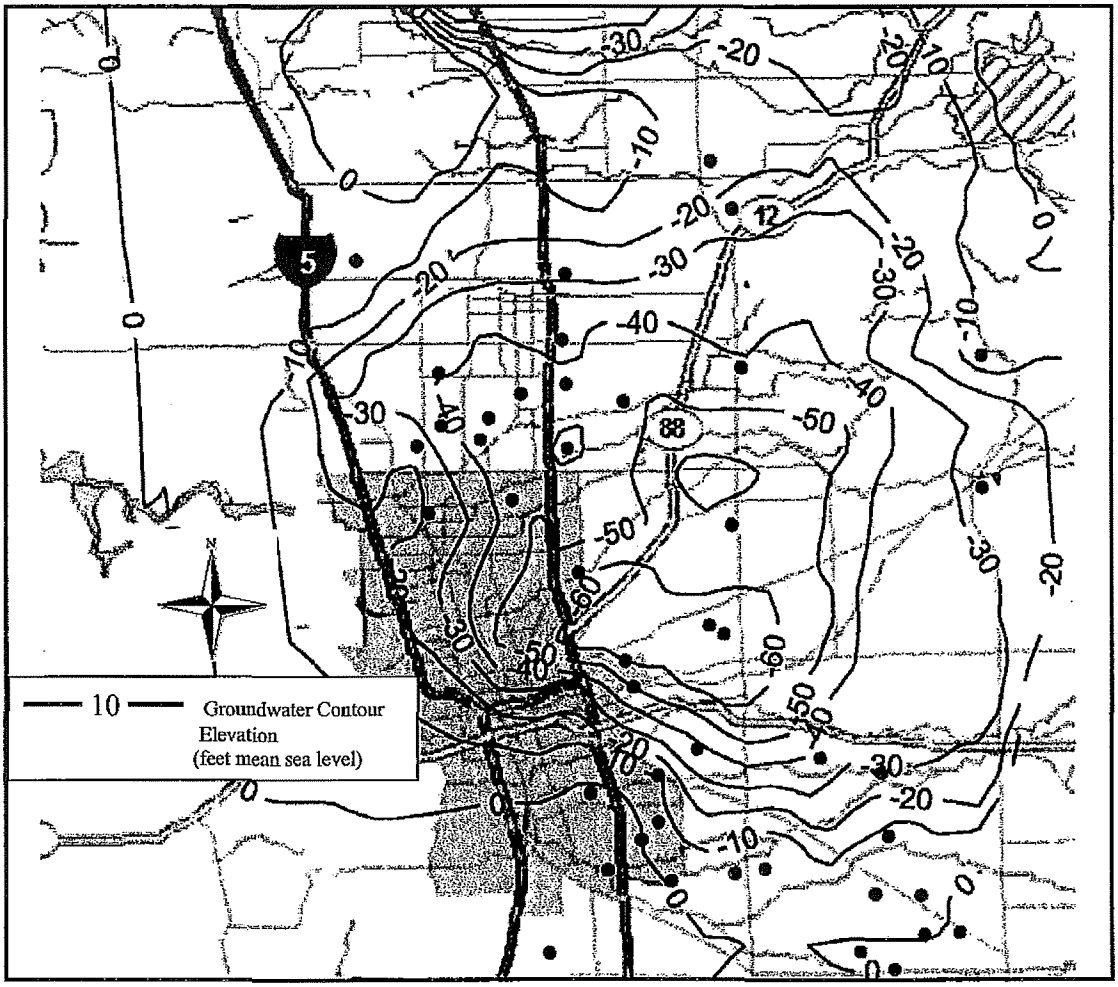


Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-4. Fall 1985 Groundwater Contours

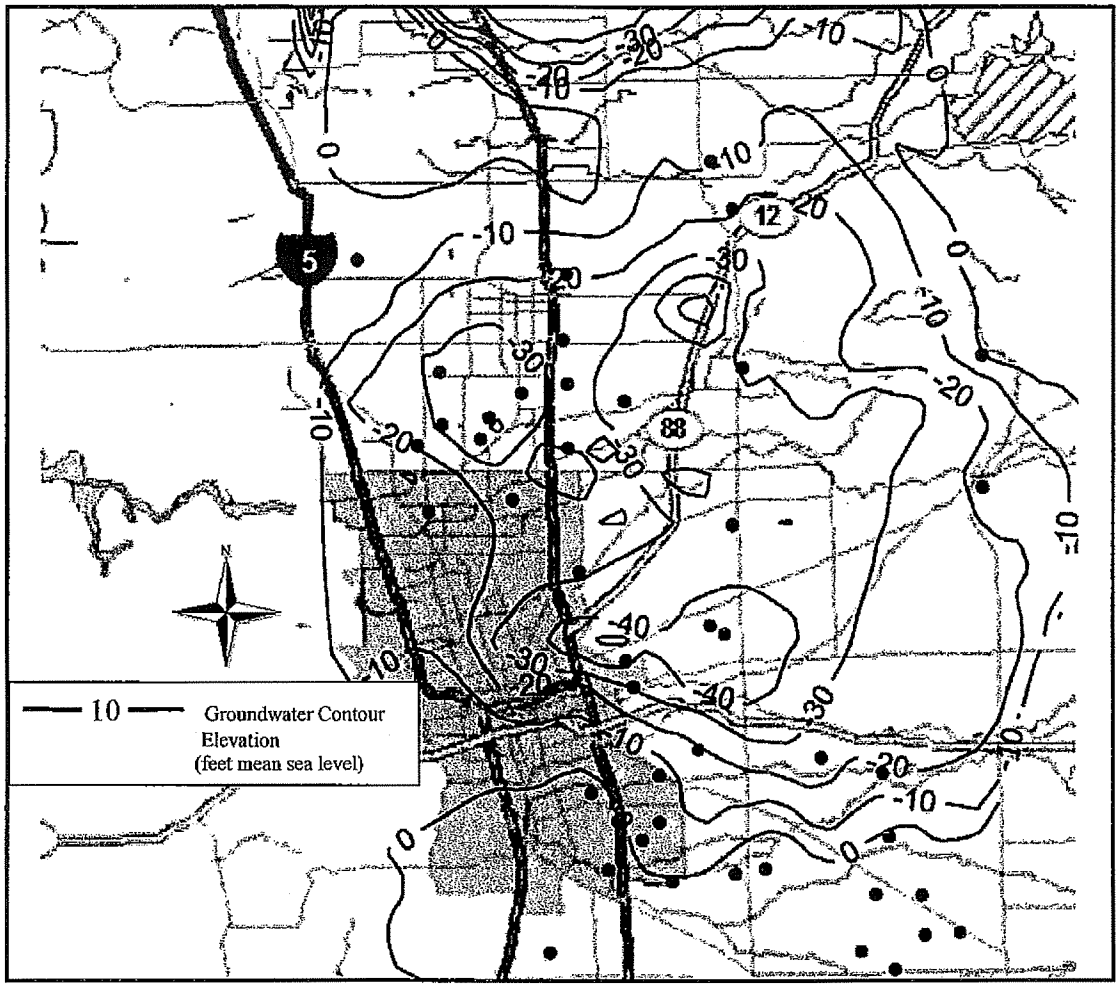


Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-5. Fall 1990 Groundwater Contours

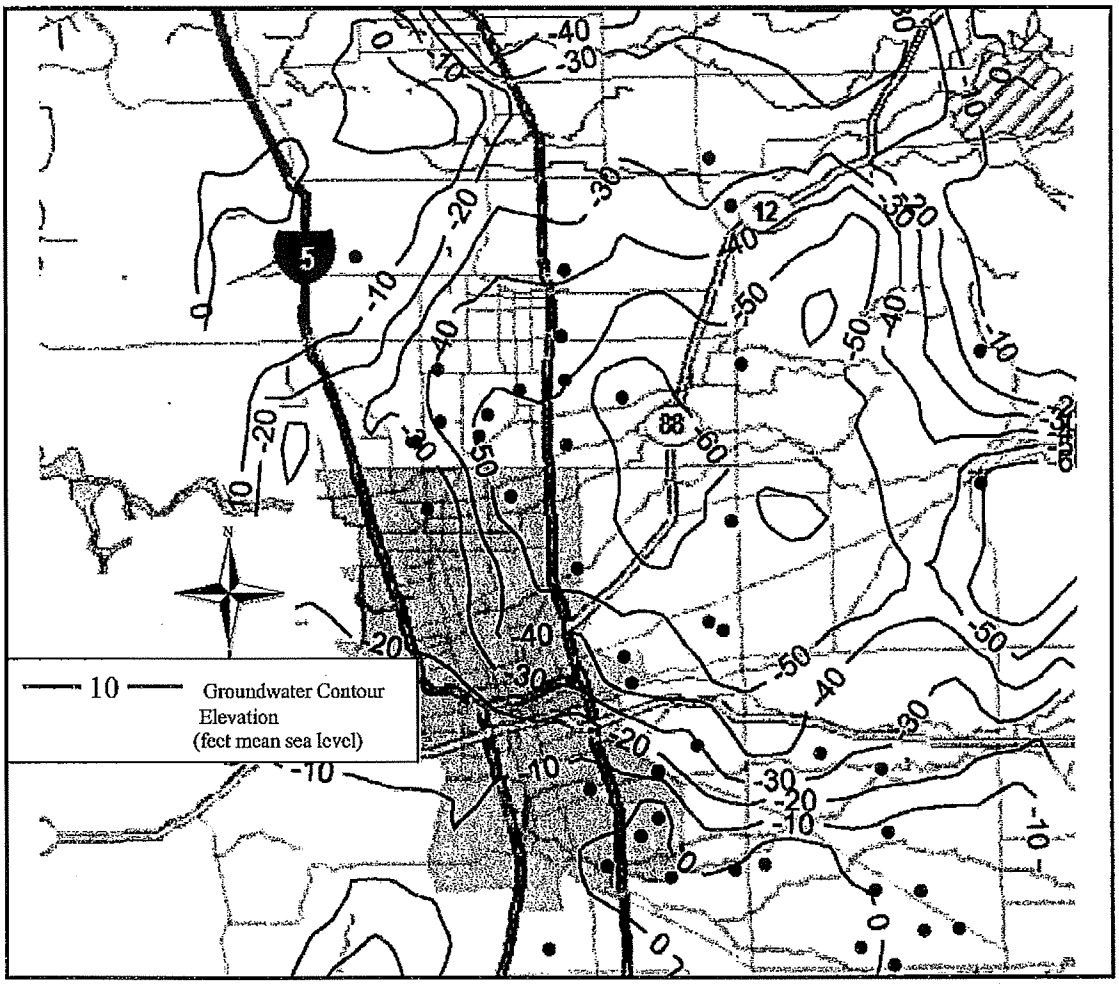


Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-6. Fall 1995 Groundwater Contours

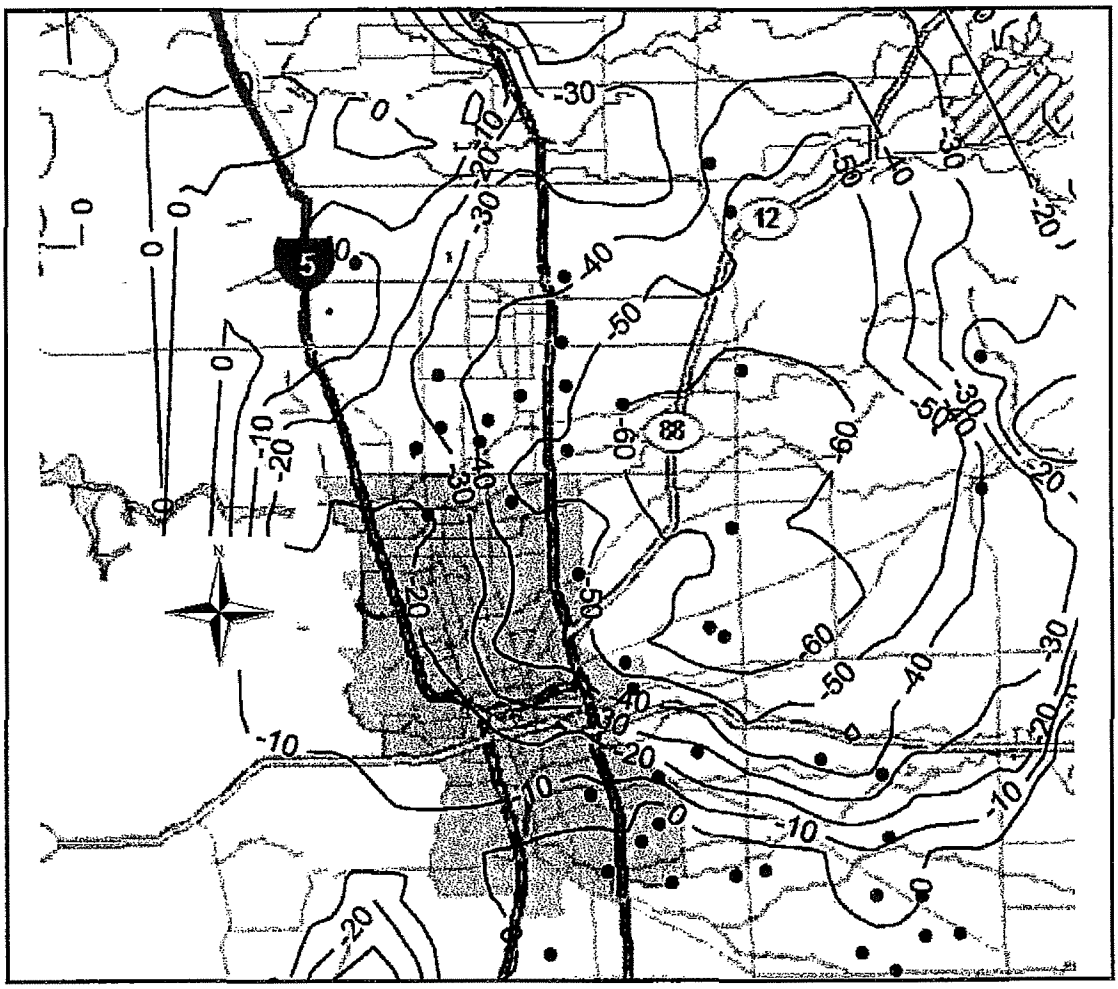
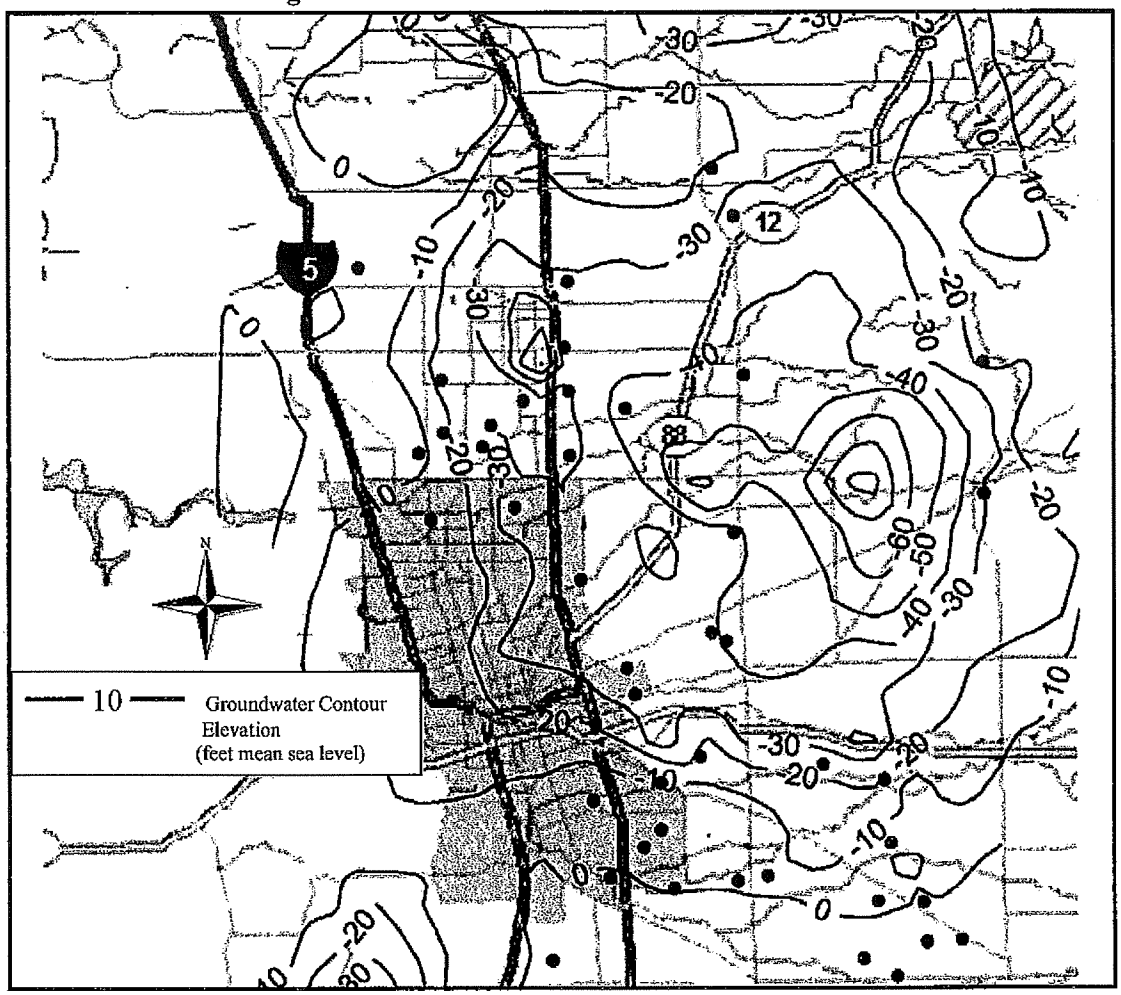


Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-7. Fall 2000 Groundwater Contours



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Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-8. Fall 2005 Groundwater Contours

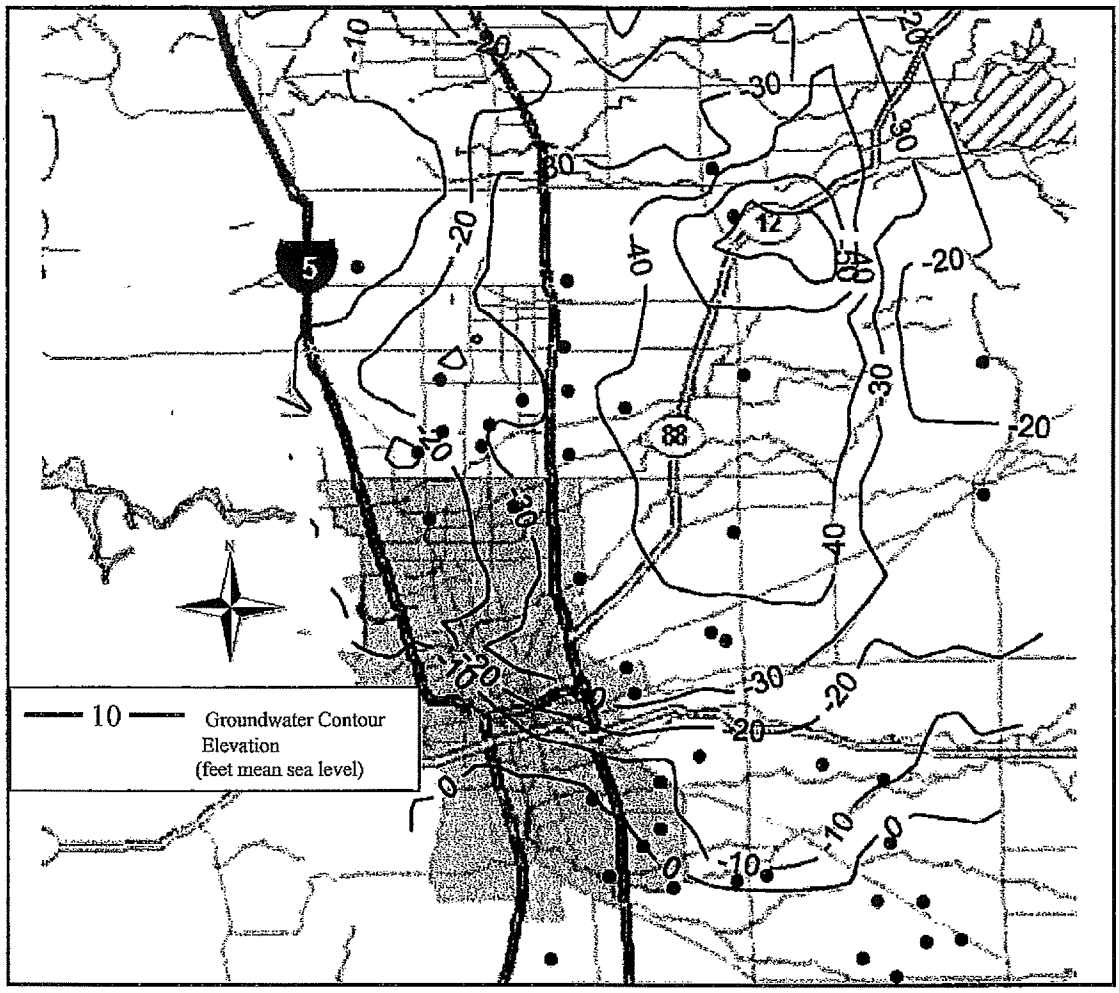

Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov

Figure A-9. 2005- 1990 Difference Contour Map

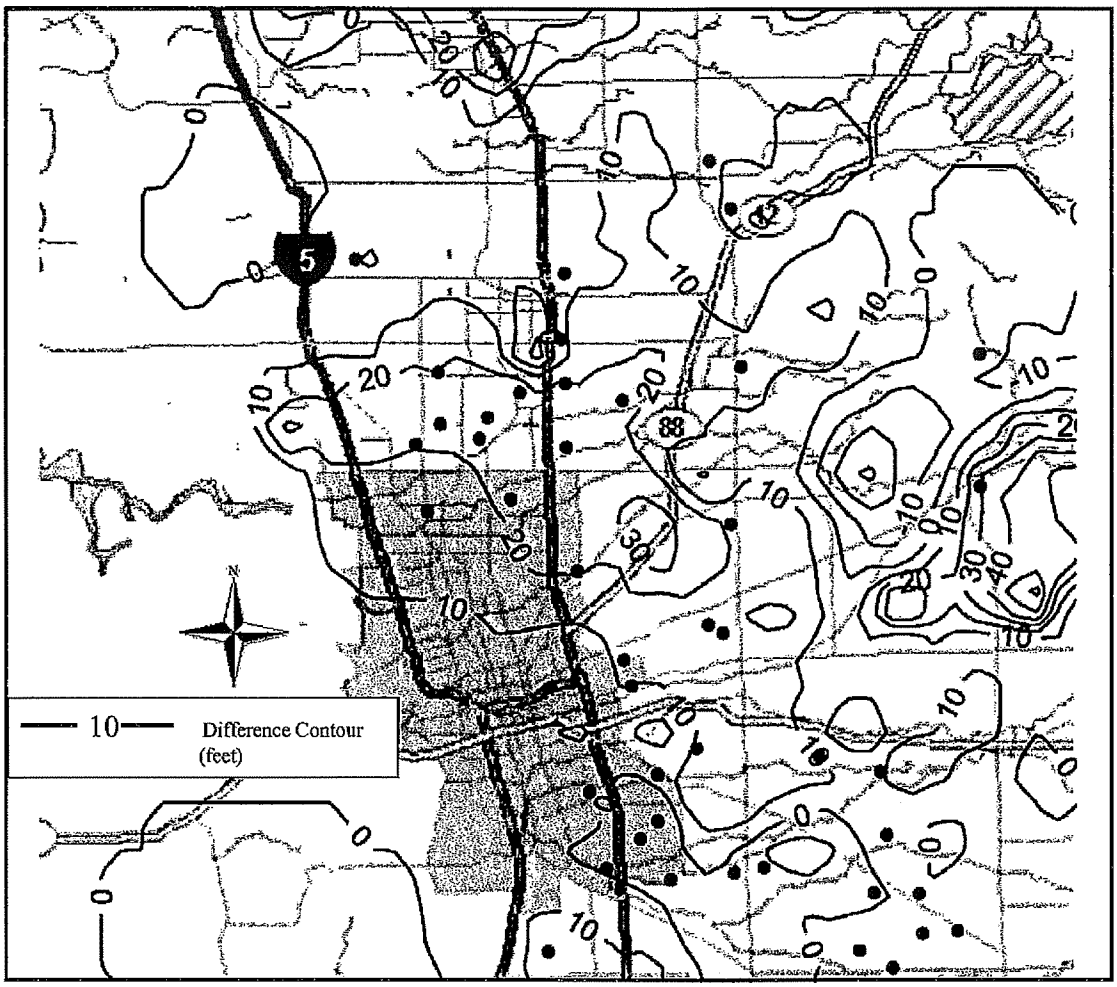

Image not to scale
Source of Data: DWR Groundwater Data Library http://wdl.water.ca.gov